

# ABANDONED HARDROCK MINE LANDS

## ISSUE SUMMARY:

Abandoned mine lands (AMLs) are those lands, surface and ground waters and surrounding watersheds where extraction, beneficiation or mineral processing of ores and minerals has occurred. The activities associated with AMLs can have an adverse effect on human health and the environment, primarily through water and soil contamination arising from uncontrolled acid mine drainage. They also can pose physical hazards. Some mining activities occurred more than a century ago. While there is no comprehensive national inventory of hardrock AMLs across the country, federal and state agencies have estimated a range of several hundred thousand sites nationwide. Addressing AML sites can result in some of the costliest and most complex cleanup actions that governments undertake.

## UPCOMING MILESTONES:

**Spring 2017** – EPA anticipates finalizing the document, “Best Practices and Approaches Report: Preventing Sudden, Uncontrolled Fluid Mining Waste Releases Prior to Conducting Response Actions at Mine Sites.” This document’s purpose is to facilitate the safe characterization of AML sites that pose fluid release risks.

## BACKGROUND:

EPA estimates that there are approximately 500 AML sites with some connection to the Superfund program, including 139 sites proposed to, finalized on, or deleted from the Superfund National Priorities List (NPL) or addressed through the Superfund Alternative approach. One of these 139 sites is the Bonita Peak Mining District site, which EPA added to the Superfund NPL in September 2016. This site includes the Gold King Mine where a major release occurred in August 2015; the Gold King Mine is one of a number of mining sources comprising the Bonita Peak site.

There is no overarching regulatory authority or organization to oversee and regulate all aspects of hardrock mining. Addressing environmental impacts is a shared responsibility among federal agencies, states, tribes, and local governments and private landowners. This fragmented regulatory authority adds to the challenge of addressing these generally remote and sometimes very large sites. If left unabated, these sites will continue to pose safety, environmental and human health risks.

The major challenges to addressing these types of sites include a lack of funding to inventory, prioritize, characterize and clean them up. A majority of these sites has been abandoned for decades or longer and will take substantial time to address. Many also have naturally occurring contamination loadings, so realistic cleanup goals need to factor in natural background.

The EPA coordinates interagency AML issues and activities through its participation in the Federal Mining Dialogue (FMD). EPA participates in the FMD with the U.S. Army Corps of Engineers and several Department of Interior offices, including the Bureau of Land Management, Office of Surface Mining Reclamation and Enforcement, National Park Service, U.S. Geological Survey, Bureau of Indian Affairs, as well as the U.S. Department of Agriculture’s U.S.

Forest Service, and the Department of Energy. EPA is a member of an interagency inventory subcommittee to share individual agency inventories of mining sites on federal lands, including those EPA tracks under the Superfund program, to develop a comprehensive AML inventory. This subcommittee intends to adopt a common set of data elements. Additionally, the FMD has formed a subcommittee on best practices to share lessons learned on characterizing and cleaning up AML sites. The FMD plans to brief the FMD Executive Steering Committee on its progress and recommendations on both of these endeavors in the next few months.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☐ Other (name of stakeholder) \_\_\_\_\_

Concerns include water quality impacts from acid mine drainage and the potential risk of uncontrolled releases of mine waters. In addition, the magnitude, risk, complexity and costs associated with addressing abandoned mines universe require a collaborative effort between federal and state government agencies, industry, tribes and environmental organizations. We anticipate continued congressional and press interest on hardrock mining issues.

#### MOVING FORWARD:

EPA engages in internal Agency consultation on AMLs where planned field activities may pose a risk of an uncontrolled release. The consultation process will be streamlined and will leverage lessons learned during FY 2016.

EPA plans to continue leveraging federal efforts, e.g., FMD, to develop a comprehensive site inventory, prioritize sites to address, characterize priority sites, and select technologies that reduce cleanup costs. There is a need for federal agencies to:

- Work with state and tribal counterparts to develop inventories of AML sites on their lands.
- Identify means to share information, educate, and manage cleanup expectations about AML sites located in highly mineralized mining districts and watersheds across the federal government and with states, tribes and the general public.
- Develop efficient, cost-effective characterization techniques and cleanup approaches.
- Streamline the process to encourage and approve reuse and re-mining of AML sites, waste piles and mine-influenced water in order to recover valuable metals and offset some cleanup costs.
- Establish centers of technical expertise for technology transfer and lessons learned to help field staff effectively characterize, clean up and redevelop AML sites.

LEAD OFFICE/REGION: OLEM    OTHER KEY OFFICES/REGIONS: OW; OECA; REGIONS 8, 9 & 10

# AMERICAN PUBLIC OPINIONS ON THE ENVIRONMENT

## Issue:

American public opinions about the environment can provide valuable information for managing agency programs and policies. Historically, EPA has invested in public opinion surveys, however, the agency currently has no survey methods in place, nor an internal organization responsible for tracking and analyzing results from public surveys. (b) (5)

## Background:

Information about Americans' views on the environment are assessed in varying timeframes by a number of media/academic/NGO organizations. In 2013, EPA provided support for the biannual General Social Survey, a longstanding survey conducted by NORC to measure broad societal trends. Prior to that, for about two decades, EPA obtained public opinion information through the GfK Roper/Green Gauge survey, which focuses primarily on market and consumer trends. EPA's invested approximately \$30,000 for each survey.

## Key Findings:

EPA reviewed publicly available results from widely recognized surveys of American opinions on the environment, including the General Social Survey, Gallup, Pew Research Center, AP-NORC, Roper, and several academic institutions (Yale University, George Mason University, University of Chicago, University of Maryland, University of Texas at Austin, Tufts University). The results generally show that:

- A large majority of Americans:
  - view the country's environmental quality as only fair or poor.
  - see the environment as a major problem.
  - say we spend too little on the environment.
  - think we should do whatever it takes to protect the environment – and believe doing so improves the economy and creates jobs.
- Water, air pollution, and climate tend to be the public's top environmental concerns (in recent years).
  - Concern about climate change is at an all-time high (more than 2/3 of Americans concerned).
  - Seven in ten Americans support the Paris Agreement on climate change.
- Most polls show public opinion is increasingly polarized by political party. Geographic location, generation and certain events or crises (e.g., drought) can be influential, too.

## Status:

Results from a number of public opinion surveys are presented in the attachment. Efforts were made to provide the most current survey results, and results from at least two sources for each issue. Questions relate to perceived US environmental quality, concerns about the environment, leading environmental concerns, the environment relative to other public concerns, government spending on the environment, and environment versus economic growth.

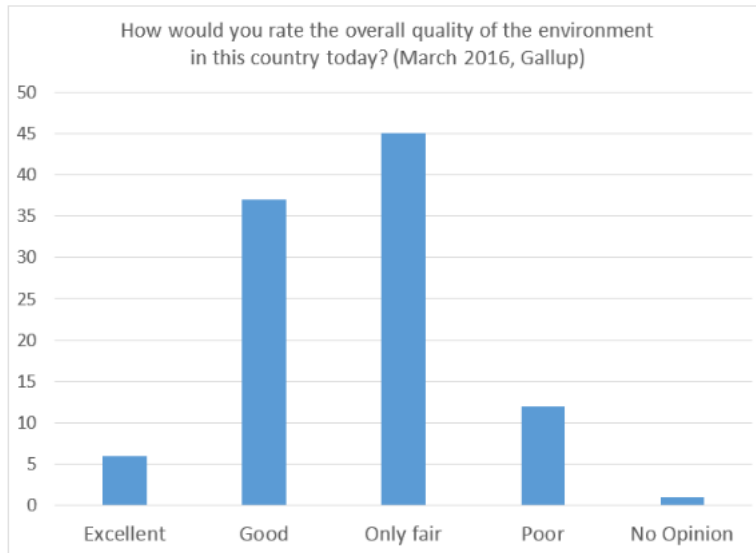
## ATTACHMENT

### Environmental Quality in the US

Gallup (March 2016)

<http://www.gallup.com/poll/1615/Environment.aspx>

***A majority of Americans think environmental quality is only “fair” or “poor.”***

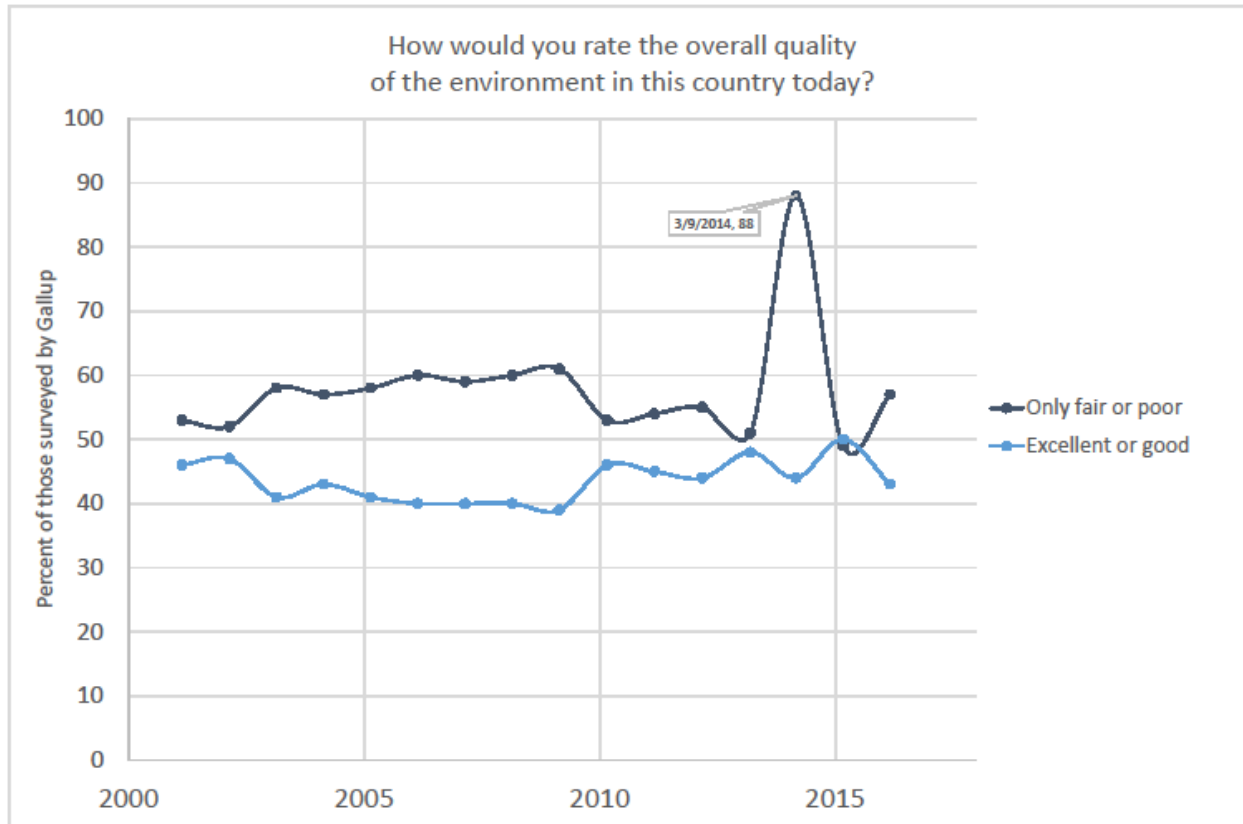




Gallup (March 2016)

<http://www.gallup.com/poll/1615/Environment.aspx>

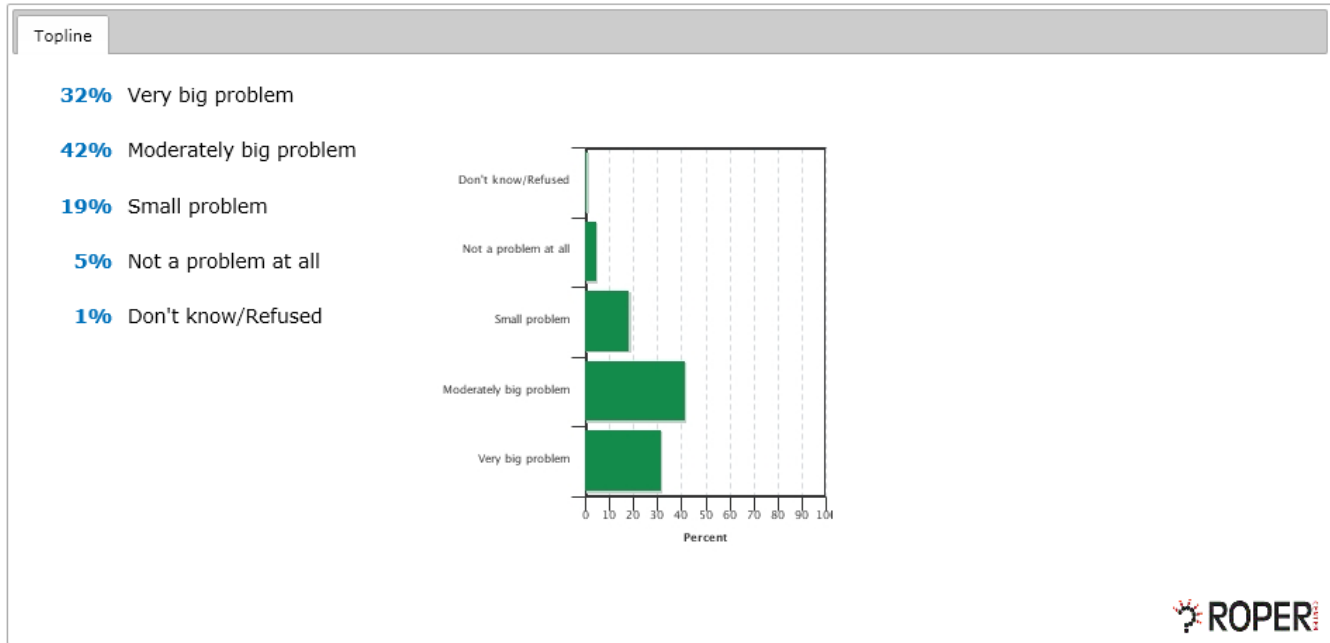
***This view of environmental quality has not changed much over the past 15 years.***



**Roper/Pew Research Center for the People & the Press Poll (Aug, 2016)<sup>1</sup>**

[http://ropercenter.cornell.edu/CFIDE/cf/action/ipoll/index.cfm?extSearch=1&keyword=environment&exclude=&topic=&fromdate=&todate=&organization=&searchname=Environment&questionViewId=&label=&studyId=&sortBy=BEG DATE\\_DESC&h=44F5A9641A71DEC896FFFF3FE327EFD11249D633](http://ropercenter.cornell.edu/CFIDE/cf/action/ipoll/index.cfm?extSearch=1&keyword=environment&exclude=&topic=&fromdate=&todate=&organization=&searchname=Environment&questionViewId=&label=&studyId=&sortBy=BEG DATE_DESC&h=44F5A9641A71DEC896FFFF3FE327EFD11249D633)

***Nearly ¾ of Americans think the environment is a very big or moderately big problem.***



Survey by Pew Research Center for the People & the Press. Methodology: Conducted by Princeton Survey Research Associates International, August 9 - August 16, 2016 and based on 2,010 telephone interviews. Sample: National adult. 507 respondents were interviewed on a landline telephone, and 1503 were interviewed on a cell phone, including 865 who had no landline telephone [USPSRA.081816.R27G] ([View Citation](#))

<sup>1</sup> [survey question]. USPSRA.081816.R27G. Princeton Survey Research Associates International [producer]. Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, iPOLL [distributor], accessed Oct-11-2016.

## **Environment Relative to Other Concerns**

Pew Research Group (August 16, 2016):

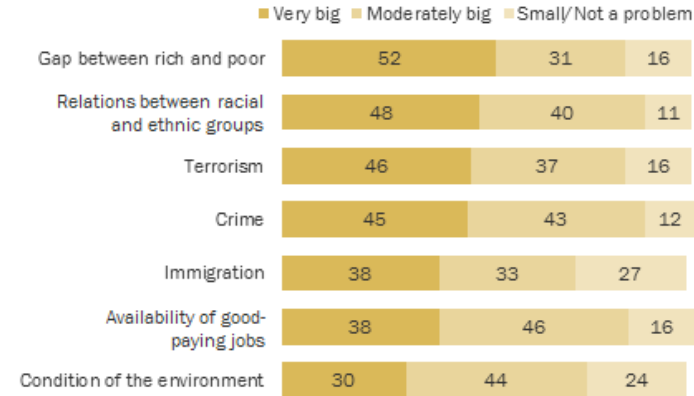
<http://www.people-press.org/2016/08/18/4-how-voters-view-the-countrys-problems/>

***While the majority of Americans are concerned about the environment, other public policy issues rank higher.***

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### **Voters' views of national problems**

% saying each is a \_\_\_\_ problem in our country



Notes: Based on registered voters. Don't know responses not shown. Q27.

Source: Survey conducted August 9-16, 2016.

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Pew Research Center (August 2016)

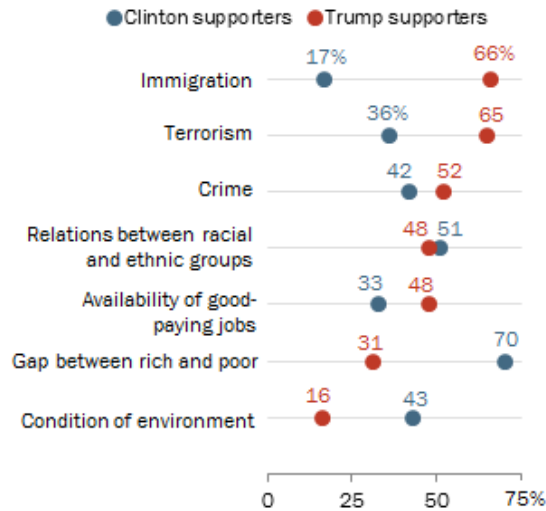
<http://www.people-press.org/2016/08/18/clinton-trump-supporters-have-starkly-different-views-of-a-changing-nation/>

*This poll also shows environment ranks behind other public policy issues, and that views vary by political party.*

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### Perceptions of 'very big' problems vary widely by candidate support

*% of Clinton/Trump supporters saying each is a 'very big problem' in our country*



Note: Based on registered voters. Q27.

Source: Survey conducted August 9-16, 2016.

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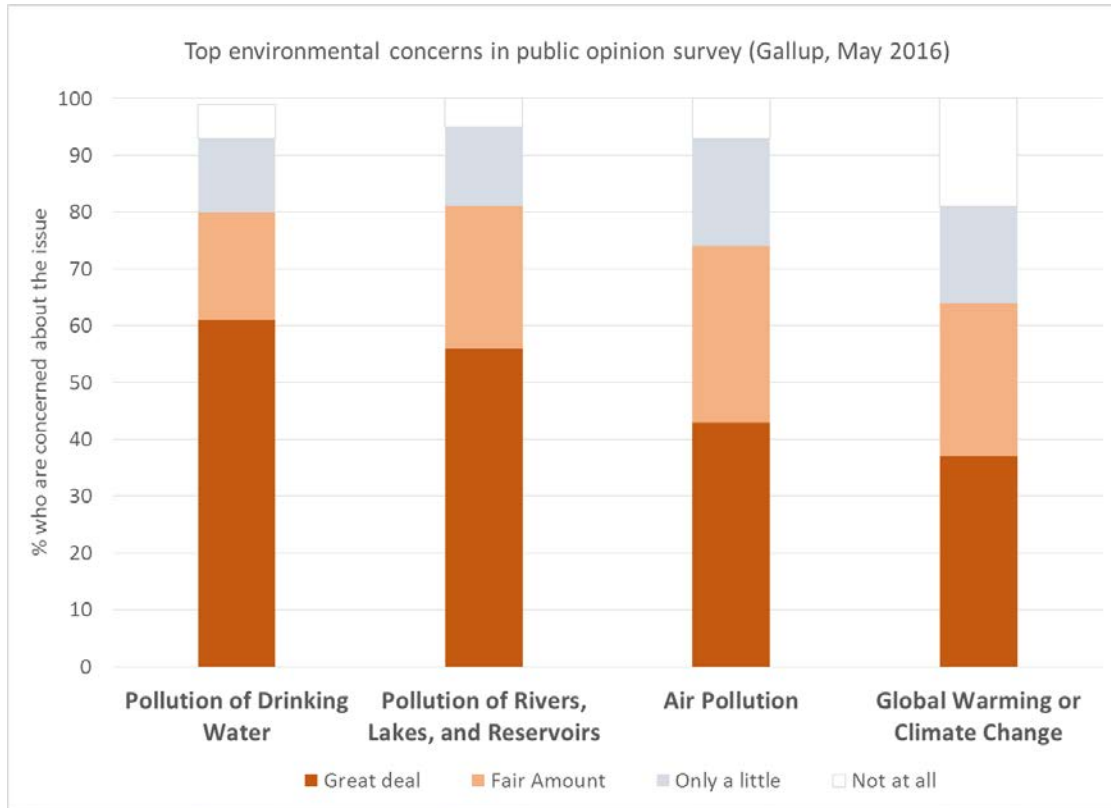
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## **Leading Environmental Concerns**

Gallup (March 2016)

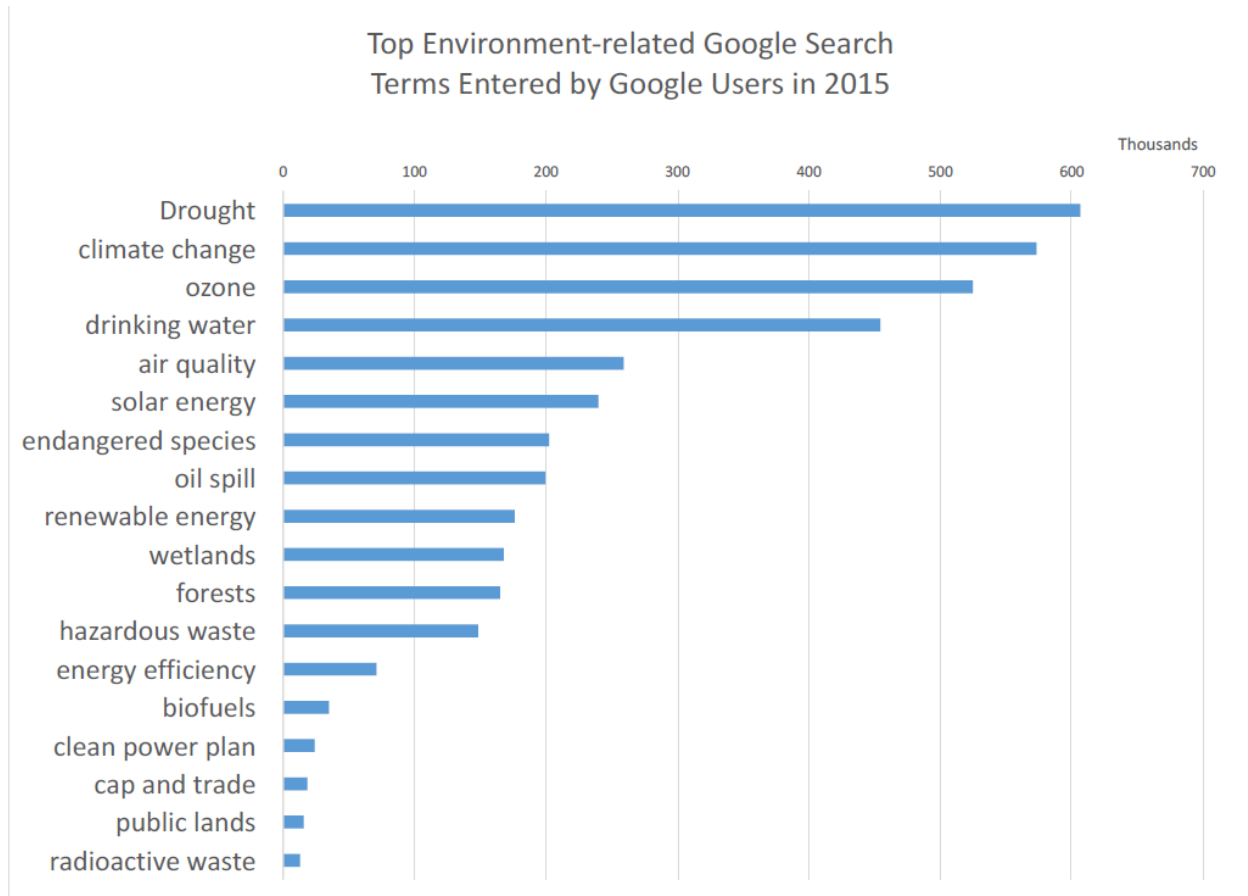
<http://www.gallup.com/poll/190034/americans-concerns-water-pollution-edge.aspx>

***Drinking water, water pollution (surface waters) and air pollution are Americans' greatest environmental concerns.***



## Google (2015)

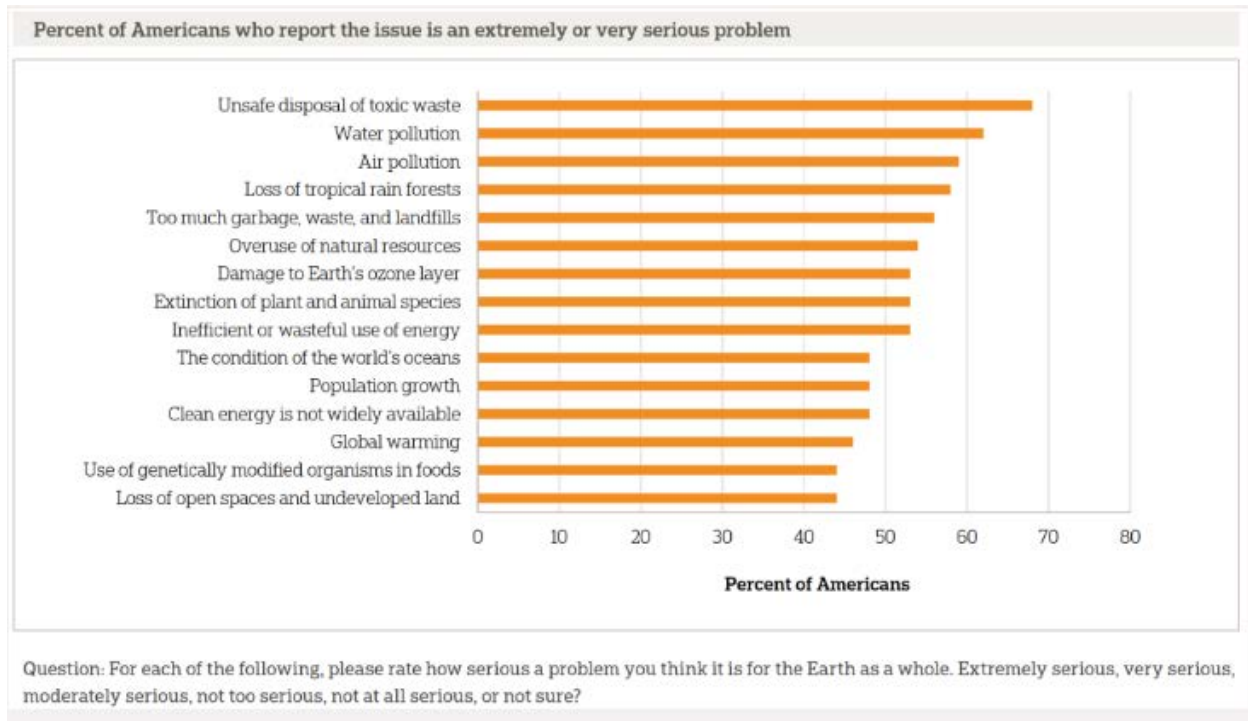
***Note: This graphic is not based on a public opinion survey, but is provided as another source of information about Americans' environmental interests. It also suggests that events can strongly influence results (the western US experienced an historic drought in 2015).***



**The Yale AP-NORC Environment Poll (January 2014)**

<http://climatecommunication.yale.edu/about/projects/environment-poll/>

***This poll shows water and air pollution are major concerns, but toxic waste ranked even higher.***

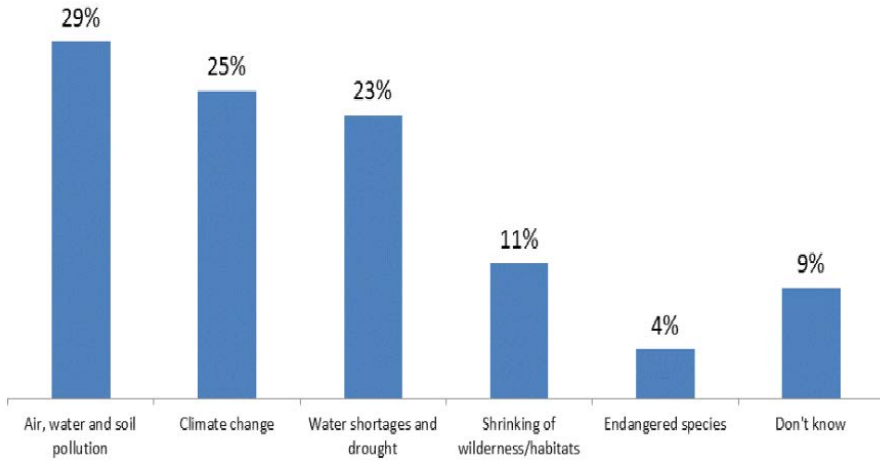




**PRRI/AAR 2014 Religion, Values, and Climate Change Survey (Sept – Oct., 2014)**

<http://ropercenter.cornell.edu/important-environmental-problem/>

***This poll also showed air, water (and soil) pollution are the greatest concerns.***



PRRI, American Academy of Religion, Ford Foundation,  
Nathan Cummings Foundation, 2014

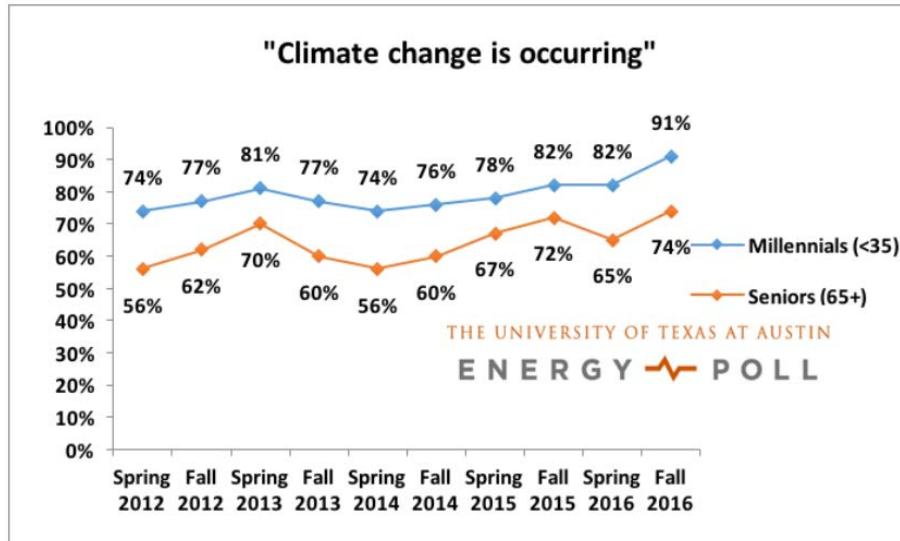


## Views on Climate Change

University of Texas-Austin (September 2016)

<http://news.utexas.edu/2016/10/27/millennials-views-on-climate-change-could-impact-election>

**79 percent of Americans – and 91 percent of millennials - say climate change is occurring.**

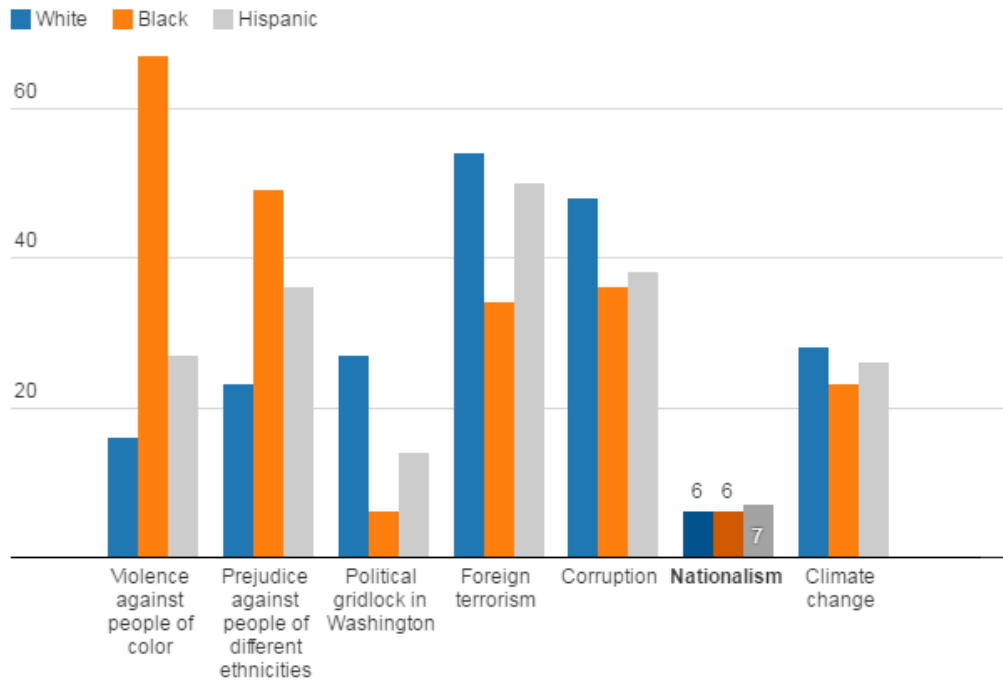


Tufts University Center for Information and Research on Civic Learning & Engagement (Sept – Oct 2016)  
<https://theconversation.com/climate-change-could-be-a-unifying-cause-of-millennials-but-will-they-vote-67027>

***Climate change is not a divisive issue among millennials – support crosses racial groups and party lines.***

## Issues support by race among millennials

Unlike "Violence against people of color," the issue of climate change draws nearly equal levels of support from different racial groups among millennials.

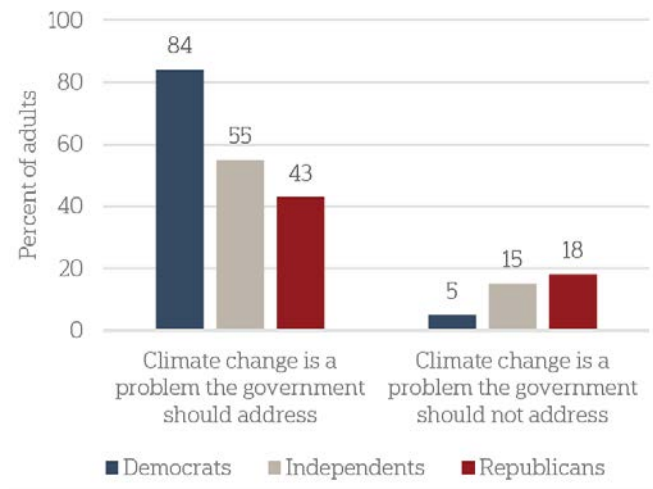


Source: Tisch College's CIRCLE 2016 Pre-election poll [Get the data](#)

Energy Policy Institute at University of Chicago/AP-NORC (August 2016)

[http://www.apnorc.org/PDFs/EnergyClimate/Fact%20Sheets 2%20Carbon%20Policies\\_Final.pdf](http://www.apnorc.org/PDFs/EnergyClimate/Fact%20Sheets%20Carbon%20Policies_Final.pdf)

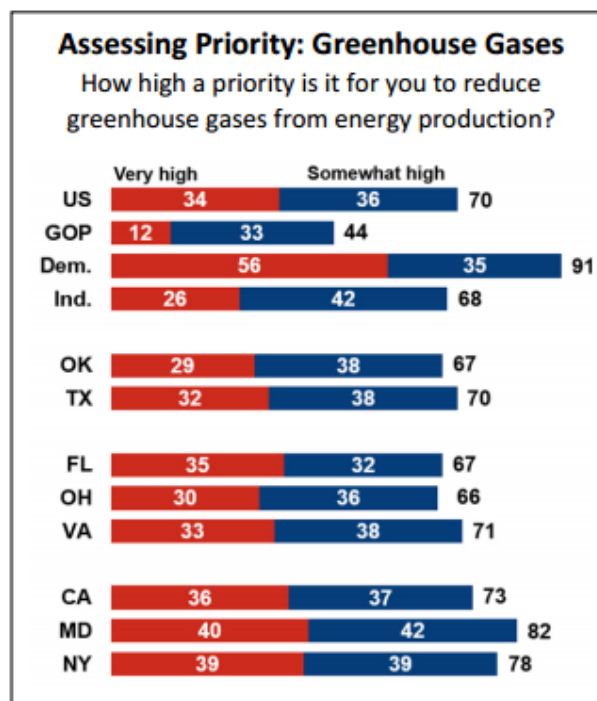
**65% of Americans say climate change is a problem the U.S. government should address. Opinions are increasingly polarized. A large majority of Democrats say climate change is happening, while independents and Republicans remain more ambivalent.**



University of Maryland Program for Public Consultation (April-June 2016)

[http://vop.org/wp-content/uploads/2016/09/EE\\_Report.pdf](http://vop.org/wp-content/uploads/2016/09/EE_Report.pdf)

**7 in 10 Americans say it is a high priority to reduce greenhouse gases from energy production**

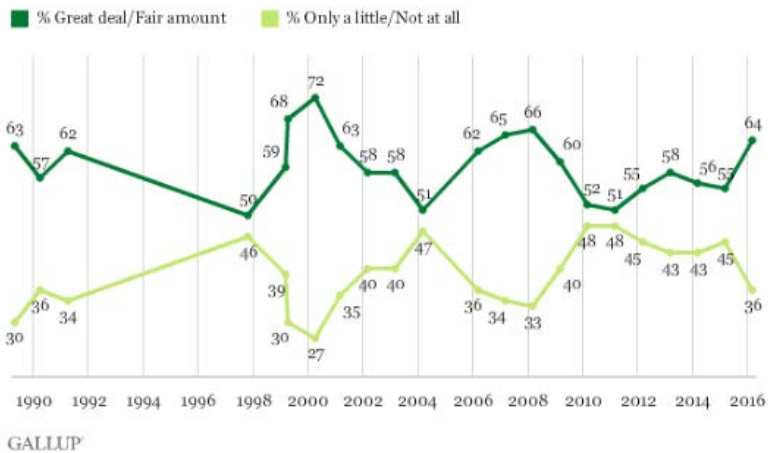


**Gallup (March 2016)**

<http://www.gallup.com/poll/190010/concern-global-warming-eight-year-high.aspx>

**US Concern about global warming is at an 8 year high: Sixty-four percent of U.S. adults say they are worried a "great deal" or "fair amount" about global warming, the highest reading since 2008.**

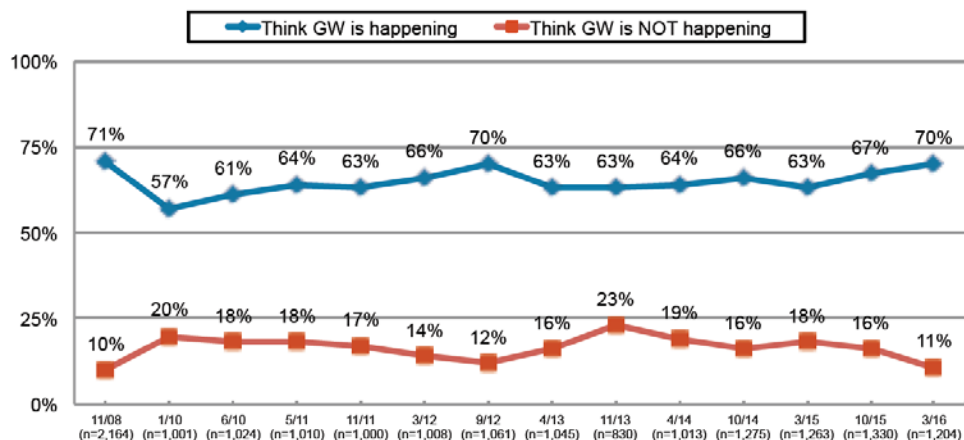
How Much Americans Worry About Global Warming



**Yale Program on Climate Change Communications / George Mason University Center for Climate Change Communications (March 2016)**

<http://climatecommunication.yale.edu/wp-content/uploads/2016/06/Climate-Change-American-Mind-March-2016-FINAL.pdf>

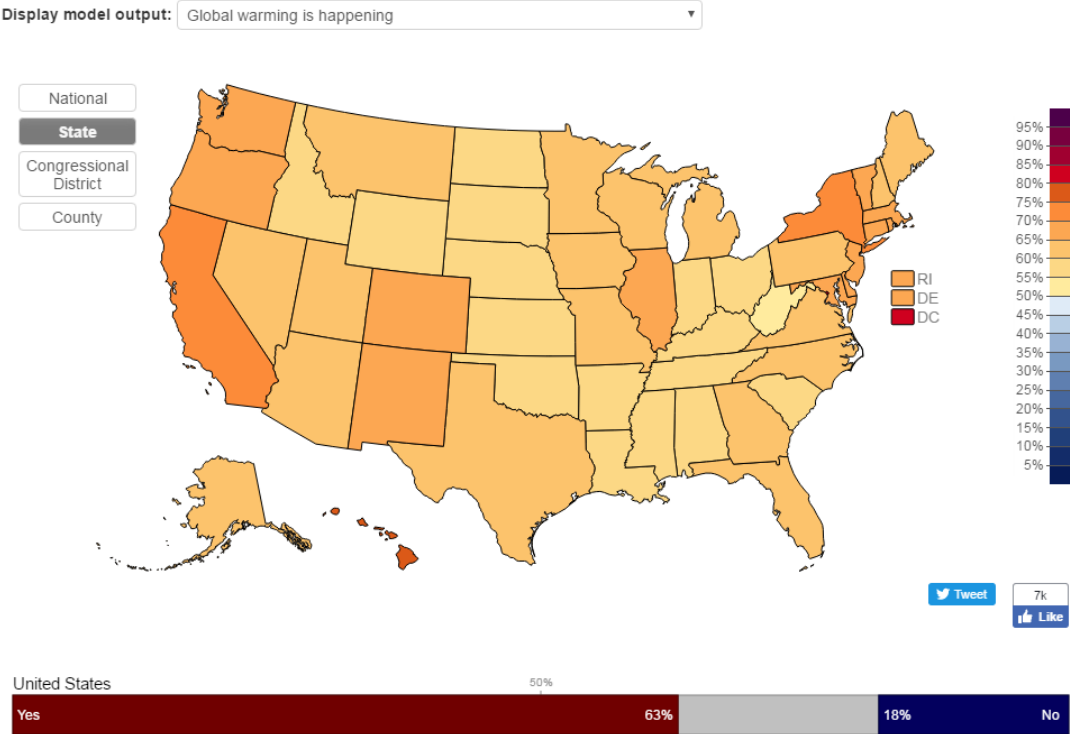
**70% of Americans think global warming is happening.**



Yale Program on Climate Change Communications (2014)  
<http://climatecommunication.yale.edu/visualizations-data/ycom/>

63% of Americans believe global warming is happening; results vary by geographic location.

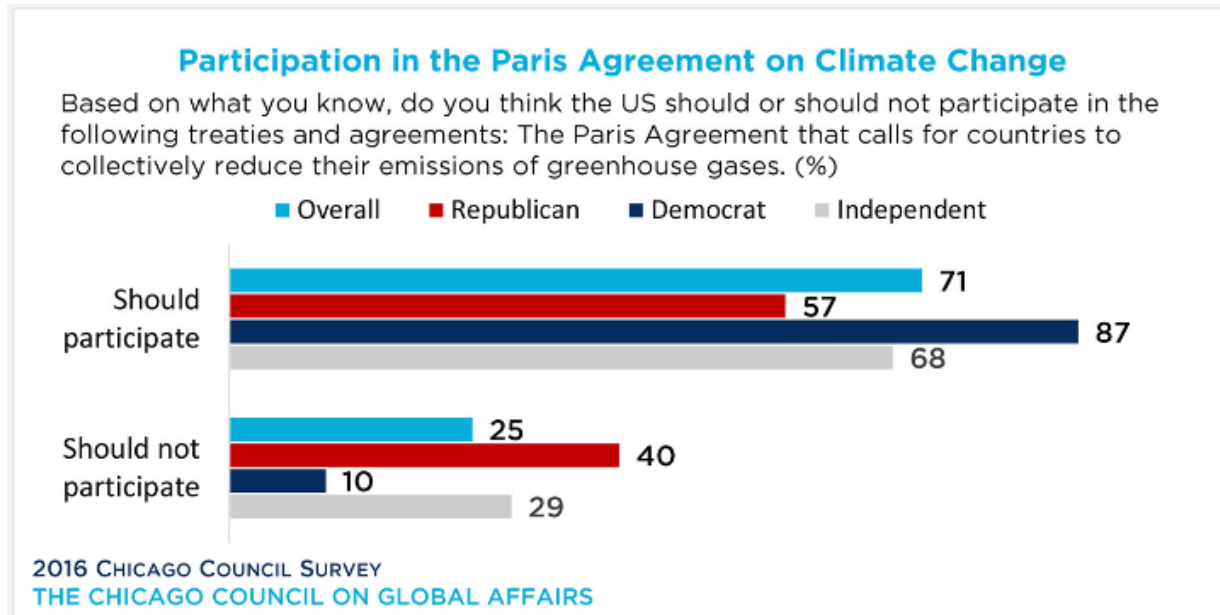
Estimated % of adults who think global warming is happening, 2014



Chicago Council on Global Affairs (June 2016)

<https://www.thechicagocouncil.org/publication/growing-support-us-some-climate-change-action>

**71 percent of Americans say the US should continue supporting the Paris Agreement on climate change.**



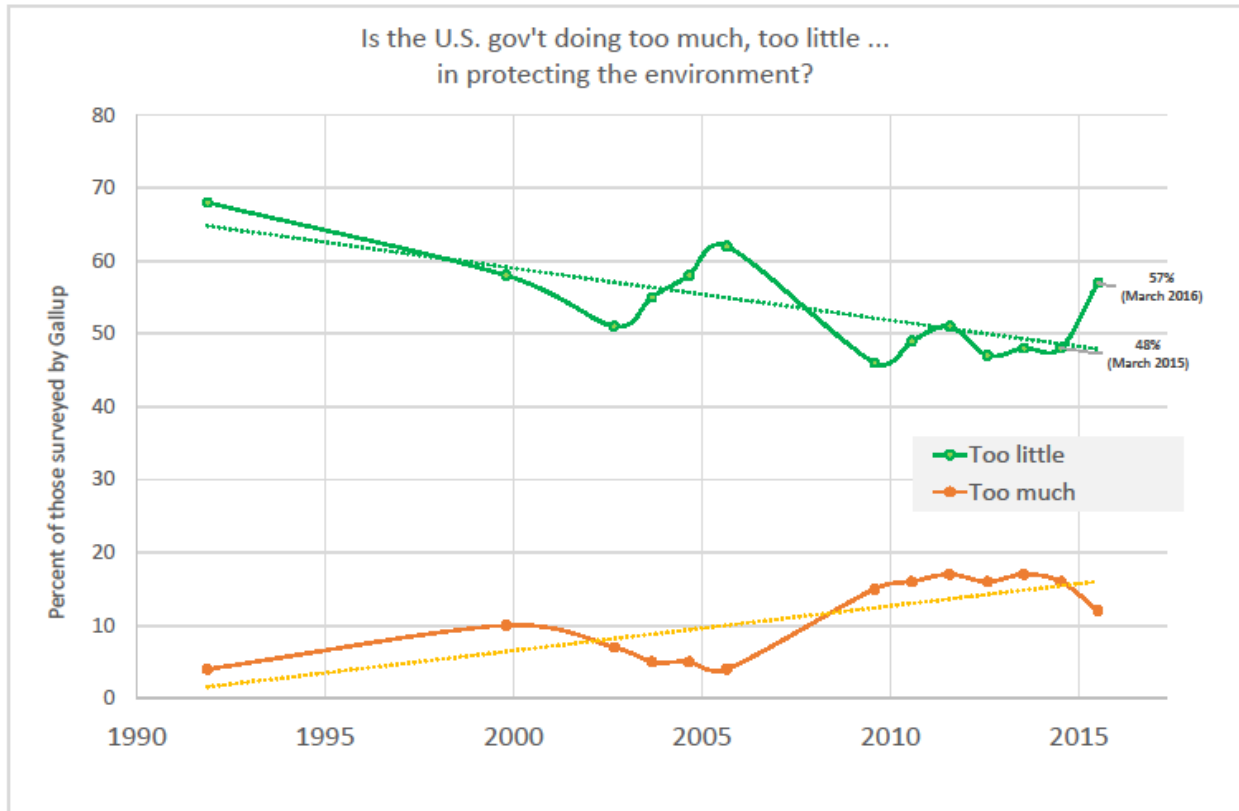


## Government Action and the Environment

Gallup (March 2016)

<http://www.gallup.com/poll/1615/Environment.aspx>

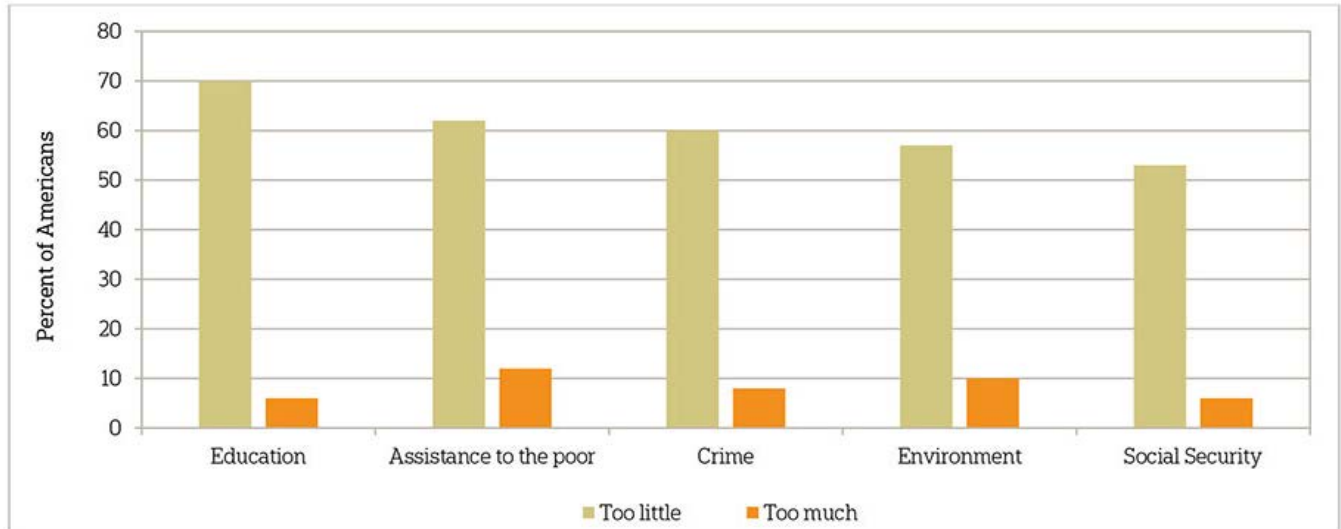
*The majority of Americans think we are doing too little on the environment. While this view has been on the decline, and dropped below 50% during the financial crisis, it rebounded in early 2016.*



**AP/NORC (December 2014)**

<http://www.apnorc.org/projects/Pages/HTML%20Reports/general-social-survey-chronicling-changes-in-american-society.aspx>

***This 2014 survey found the majority of Americans thought we spent too little on the environment.***



**General Social Survey (1973-2014)**

[http://www.norc.oregon.gov/PDFs/GSS%20Reports/GSS\\_Trends%20in%20Spending\\_1973-2014.pdf](http://www.norc.oregon.gov/PDFs/GSS%20Reports/GSS_Trends%20in%20Spending_1973-2014.pdf)

***Since 1973, more than ½ of Americans have expressed support for more environmental spending. Support peaked in the late 80s and early 90s, and has now fallen back to levels seen in earlier years.***

<b>B. Improving and Protecting the Environment/The Environment</b>								
	<b>1973</b>	<b>1974</b>	<b>1975</b>	<b>1976</b>	<b>1977</b>	<b>1978</b>	<b>1980</b>	<b>1982</b>
Too little	64.6	63.7	57.9	58.6	52.1	55.0	51.9	54.4
About right	27.6	27.9	32.2	32.0	36.3	34.7	32.0	33.4
Too much	7.7	8.3	9.9	9.4	11.6	10.3	16.1	12.2
Net (TL -TM)	+56.9	+55.4	+48.0	+49.2	+40.5	+44.7	+35.8	+42.2
	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>
Too little	58.1	60.4	62.4	62.4	66.5	68.1	75.0	75.0
About right	32.5	32.4	29.6	31.3	27.4	27.4	20.4	21.2
Too much	9.4	7.1	8.0	6.3	6.1	4.6	4.6	3.8
Net (TL -TM)	+48.7	+53.3	+54.4	+56.1	+60.4	+63.5	+70.4	+71.2
	<b>1991</b>	<b>1993</b>	<b>1994</b>	<b>1996</b>	<b>1998</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>
Too little	71.8	60.5	62.7	62.0	64.7	64.3	61.9	64.9
About right	23.2	30.2	28.2	27.7	27.5	27.7	29.8	28.2
Too much	5.0	9.2	9.0	10.3	7.8	8.0	8.2	6.8
Net (TL -TM)	+66.8	+51.3	+53.7	+51.7	+56.9	+56.3	+53.7	+58.1
	<b>2006</b>	<b>2008</b>	<b>2010</b>	<b>2012</b>	<b>2014</b>			
Too little	68.9	67.4	60.2	57.4	59.9			
About right	24.1	23.9	28.1	31.1	29.2			
Too much	7.0	8.7	11.7	11.5	10.9			
Net (TL -TM)	+61.9	+58.7	+48.5	+45.9	+49.0			

Pew Research Center (April 2015)

<http://www.pewresearch.org/fact-tank/2016/04/22/for-earth-day-heres-how-americans-view-environmental-issues/>

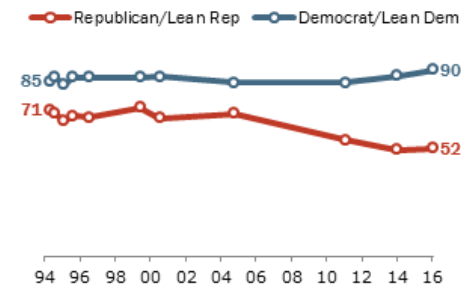
**Nearly ¾ of Americans said the country should do whatever it takes to protect the environment, however, the gap in partisan views is widening.**

**1** Overall, Americans support protecting the environment, but there are deep partisan divides on the issue. Fully 74% of U.S. adults said the “country should do whatever it takes to protect the environment,” compared with 23% who say “the country has gone too far in its efforts to protect the environment,” according to newly released data from a **Pew Research Center survey** conducted in March.

Democrats and those who lean to the Democratic Party have consistently been more likely than Republican and Republican leaners to agree that the country should do whatever it takes to protect the environment, but Republican support has decreased since 2004 and the gap between the two groups has widened to 38 percentage points today.

### Should the country do whatever it takes to protect the environment? Most say yes, but party divisions grow wider

% of U.S. adults who say the country should do whatever it takes to protect the environment



Source: Survey conducted March 17-27, 2016. Trend data from previous Pew Research Center surveys.

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## Environment & Economic Growth

Gallup: (March 2016)

<http://www.gallup.com/poll/1615/Environment.aspx>

***In the 30 years that Gallup has asked this question, Americans have almost always chosen the environment over economic growth as a priority.***

*With which one of these statements about the environment and the economy do you most agree -- protection of the environment should be given priority, even at the risk of curbing economic growth (or) economic growth should be given priority, even if the environment suffers to some extent?*

■ % Protection of the environment should be given priority

■ % Economic growth should be given priority



GALLUP®

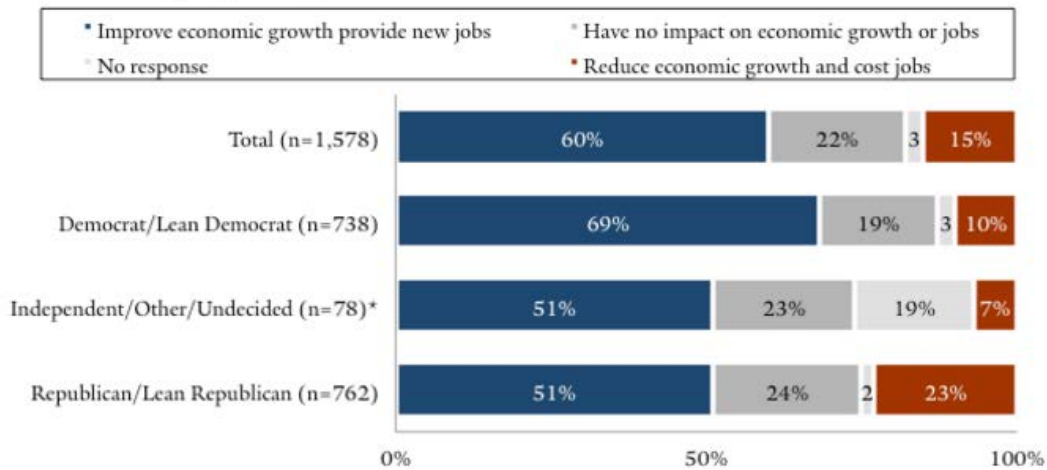
Yale/AP/NORC (November-December 2014)

<http://climatecommunication.yale.edu/visualizations-data/3225/>

**A large majority of Americans (60%) say that in the long run, protecting the environment improves economic growth and provides new jobs, while another 22% say that protecting the environment has no impact on economic growth or jobs.**

## Majority of Americans Think Protecting the Environment Improves the Economy and Provides New Jobs

*In the long run, protecting the environment will...*



Please indicate which of these statements comes closest to your own views – even if it is not exactly right. In the long run, protecting the environment will...

Base: Americans 18+ (n=1,576). November, 2014.

\*Caution: small base.



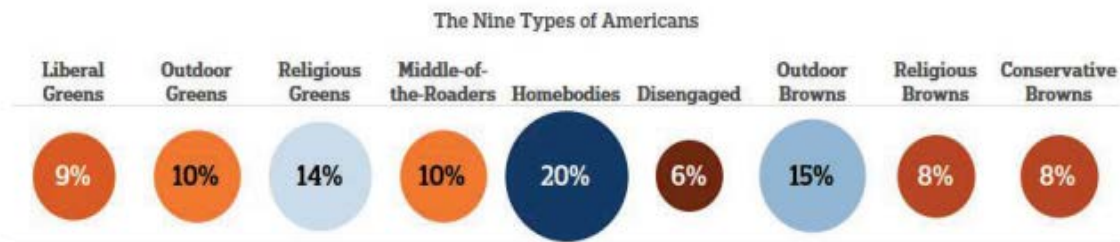
## Partisan Views

Note: Several results provided in this summary show that views are strongly partisan. However, a 2014 study found views do not always fall along party lines, and that the majority “fall somewhere in the middle.”

The AP-NORC Center for Public Affairs Research and the Yale School of Forestry & Environmental Studies (November-December 2014)

[http://www.apnorc.org/PDFs/Global%20Warming/12-2015%20Segmentation%20Report\\_D10\\_DTP%20Formatted\\_v2b-1b.pdf](http://www.apnorc.org/PDFs/Global%20Warming/12-2015%20Segmentation%20Report_D10_DTP%20Formatted_v2b-1b.pdf)

***This survey found the American public is not simply polarized into pro- and anti-environment groups. They can be segmented into nine distinct types, each with a unique understanding of the environment, perspectives on key environmental issues, and different environmental behaviors. They range from the “Liberal Greens” on the environmentally friendly side to the “Conservative Browns” on the more anti-environmentalism side. But the data show that the majority of Americans, 65 percent, fall somewhere in the middle, holding complex and nuanced perspectives on the environment.***



Source: National poll conducted by The AP-NORC Center for Public Affairs Research and The Yale School of Forestry & Environmental Studies between November 20-December 1, 2014. N=1,576. Margin of sampling error +/-2.9 percentage points. The margin of sampling error may be higher for subgroups.



# BEHAVIORAL SCIENCES (“NUDGE”)

## ISSUE SUMMARY:

In numerous applications across the government, the use of behavioral insights and evidence-based empirical techniques have greatly improved government operations and policy decisions. [REDACTED]

## BACKGROUND:

EPA has historically relied on economics as the social science framework for analyzing policy actions, including the use of benefit-cost analysis. In recent years, economists and other scholars have begun to examine the role of social, psychological and other cognitive factors that influence behavior.

Social and behavioral sciences provide a framework for understanding how people process information and make decisions, as well as methodological tools to help design policies that achieve desired outcomes. Examples of policies that incorporate behavioral sciences (sometimes called “nudges”) include automatic enrollment of employees into retirement savings plans and rearranging cafeterias to make healthy foods more convenient or eye-catching. An environmental example is the use of home energy reports mailed to residential consumers comparing their electricity consumption to that of their neighbors. Policies based on behavioral sciences are typically evaluated using rigorous techniques like randomized controlled trials to test their effectiveness before they are implemented on a wide scale.

During this Administration, two White House offices (OSTP and OMB) have put increased emphasis on using behavioral insights and evidence-based empirical techniques to improve government operations and policy decisions. A 2015 Executive Order encouraged federal agencies to incorporate behavioral insights into policy decisions. It also established the Social and Behavioral Sciences Team (SBST) as a resource for the use of behavioral sciences in federal agencies. In addition, Congress established and President Obama signed into law the bipartisan Commission on Evidence Based Policymaking in 2016 to promote rigorous analytical methods and use of government data sets for program evaluation.

In early 2016, SBST worked with EPA to apply best practices from behavioral sciences in the design of flyers and posters distributed in Flint, Michigan, describing actions people should take to protect their families from lead-contaminated water. OECA has begun to consider how behavioral insights can increase compliance with regulations, Office of Policy’s National Center for Environmental Economics (NCEE) has provided training on behavioral sciences to EPA economists, scientists, and managers, and ORD has provided training on the basics of social science to ORD researchers to inform integration of social sciences into research planning. (b) (5) [REDACTED]

(b) (5)

Since FY2014, OMB has encouraged federal agencies to increase their use of behavioral insights and to evaluate policies and programs using rigorous evidence-based approaches. (b) (5)

Meanwhile, other federal agencies are undertaking more projects with SBST and increasing their capacity to undertake this type of work. For example, USDA's Economic Research Service established a Center for Behavioral and Experimental Agri-Environmental Research (CBEAR) in 2014.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☐ Industry    ☐ States    ☐ Tribes    ☐ Media    ☒ Other Federal Agency  
☐ NGO    ☒ Other (name of stakeholder) academics, environmental groups

(b) (5)

#### MOVING FORWARD:

(b) (5)

- I [REDACTED]
- I [REDACTED]
- I [REDACTED]

LEAD OFFICE/REGION: OP

OTHER KEY OFFICES/REGIONS: ORD, OECA, OCFO

# BIOMASS

## ISSUE SUMMARY:

Forests and the agricultural sector can play a critical role in addressing carbon pollution in the United States by maintaining and enhancing carbon sinks and, in some cases, by providing less carbon-intensive fuel to replace fossil fuels. While EPA's Science Advisory Board (SAB) has concluded that biomass is not inherently carbon neutral, there is not consensus among stakeholders as to how greenhouse gas (GHG) emissions from biomass feedstocks should be accounted for in GHG policies and programs. EPA's work in this area focuses on providing technical foundations for assessing GHG emissions from biomass feedstocks.

## UPCOMING MILESTONES:

- **Early 2017-** EPA's SAB Biogenic Carbon Emissions Panel releases Draft Peer Review report (*possibly early 2017*)
- **Early/Mid 2017-** Final Peer Review released by chartered SAB and delivered to EPA (*potentially early/mid 2017*)

## BACKGROUND:

- Different types of biomass (e.g., forest and agricultural materials, biogas) can be used for energy production and transportation fuel. The centerpiece of EPA's technical work evaluating the net carbon dioxide (CO<sub>2</sub>) emissions associated with biomass use for energy at stationary sources is the draft report: "Framework for Assessing Biogenic CO<sub>2</sub> Emissions from Stationary Sources." This report is undergoing peer review by EPA's SAB. Previously, SAB concluded it is not scientifically valid to assume biomass used for energy is carbon neutral, and the extent to which biomass use for energy leads to net GHG emissions or carbon sequestration depends on how it is produced, harvested and converted into energy, or what would have happened to that material if not used for energy.
- *Legal obligations or public commitments:*
  - Both the 2009 motor vehicle and 2016 aircraft endangerment findings establish that once in the atmosphere, there is no difference between CO<sub>2</sub> from biomass and fossil fuels.
  - The Clean Power Plan allows for qualified biomass as a compliance option for states and utilities.
  - Per a 2014 Supreme Court decision and recent EPA rulemaking, stationary source construction projects that increase only CO<sub>2</sub> emissions over major permitting threshold levels are not subject to federal major source air permitting requirements. These requirements still apply to CO<sub>2</sub> emissions from major sources or modifications that increase other pollutants above these levels.
  - In 2011, EPA issued guidance to permitting authorities that identified the use of biomass fuel itself as a potential control strategy for individual sources in the permitting process.
  - EPA granted one administrative reconsideration petition on biogenic CO<sub>2</sub> emissions treatment under CAA permitting programs (Tailoring Rule). This reconsideration process is ongoing.
  - EPA has several administrative petitions for reconsideration of the treatment of biogenic CO<sub>2</sub> emissions pending under both the 111(d) rule for existing power plants and the 111(b) rule for new sources. EPA has deferred action on the issues raised in the 111(b) petitions pending EPA's ongoing scientific process on biogenic CO<sub>2</sub> emissions, and is still considering the 111(d) petitions.

- Industry parties filed biomass-related challenges to the Tailoring Rule, EPA's 111(d) and 111(b) rules, and the aircraft endangerment finding. As of October 2016, the courts have granted industry requests to sever their biomass-related claims from the Tailoring Rule, 111(b), and 111(d) litigation and to hold these cases in abeyance pending resolution of the petitions for EPA to reconsider the regulatory treatment of stationary source biogenic CO<sub>2</sub> emissions.
- In November 2014, EPA issued a memorandum describing EPA's thinking on biogenic CO<sub>2</sub> emissions in the context of the Clean Power Plan and PSD permitting program, including the intent to write a rule to exempt biogenic CO<sub>2</sub> emissions from PSD permitting requirements.
- The U.S. Government Biomass Research and Development Board will release its publication, *The Bioeconomy Initiative: Challenges and Opportunities for a Billion Ton Vision* (anticipated November 2016).
- The science underlying biomass use for energy and related GHG emissions is complex due to the intricate environmental, energy and market systems underpinning biomass production and use. In the scientific community, uncertainty remains about the net effects of bioenergy.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Government      ☐ Other (name of stakeholder) \_\_\_\_\_

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]

#### MOVING FORWARD:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS: OGC

# BRISTOL BAY, ALASKA LITIGATION

## (PEBBLE MINE)

### ISSUE SUMMARY:

For well over a decade, Pebble Limited Partnership (PLP), a mining company, has been exploring building a large-scale mine in Bristol Bay. In May of 2010, a group of federally recognized Alaska Native tribes from the Bristol Bay region petitioned EPA to use its authority under [Section 404\(c\) of the Clean Water Act](#) to protect the watershed's fishery resources. In response to competing requests, EPA conducted a multi-year scientific assessment of the potential impacts of large-scale mining in the watershed. In July 2014 EPA Region 10 issued a Proposed Determination under Section 404(c), proposing to restrict the use of certain waters as a disposal site. PLP sued EPA for alleged violations of the Federal Advisory Committee Act (FACA) in preparing the assessment and obtained a preliminary injunction of all 404(c) activities while the litigation proceeds.

### UPCOMING MILESTONES:

- **March 20, 2017**      Stay of litigation ends

### BACKGROUND:

The [potential Pebble Mine in Bristol Bay, Alaska](#), is an issue of national significance and the subject of intense public interest. Based on information from PLP, mining the Pebble deposit is likely to involve excavation of the largest open pit ever constructed in North America. The Bristol Bay watershed supports the largest runs of sockeye salmon fishery in the world, and its Chinook salmon runs are frequently at or near the world's largest. The watershed's salmon fishery supports about 14,000 part-time and full-time jobs and generates an estimated \$480 million in direct economic expenditures and sales. In addition, for over 4,000 years, it has served as a significant subsistence fishery for Alaska Native people, who may be among the last remaining salmon-based, subsistence cultures in the world.

PLP or its representatives have also filed more than a dozen FOIA requests with EPA, and related FOIA litigation is currently ongoing in the District of Alaska before the same judge in the FACA case.

### KEY EXTERNAL STAKEHOLDERS:

- |  |   |  |  |                                |   |   |
|--|---|--|--|--------------------------------|---|---|
| <input checked="" type="checkbox"/> Congress | <input type="checkbox"/> Industry   | <input checked="" type="checkbox"/> States | <input checked="" type="checkbox"/> Tribes | <input type="checkbox"/> Media | <input type="checkbox"/> Other Federal Agency | <input checked="" type="checkbox"/> NGO |
| <input type="checkbox"/> Local Government    | <input checked="" type="checkbox"/> Other (name of stakeholder) <u>Pebble Limited Partnership</u> |  |  |                                |   |   |

**Congress:** EPA has received inquiries and document requests about this matter from the U.S. Senate Committee on Environment and Public Works and the U.S. House Committees on Science, Space and Technology and Oversight and Government Reform.

**NGOs and Tribes:** NRDC, the Bristol Bay Native Corporation and other Alaska native communities support action under CWA section 404(c).

**Pebble Limited Partnership and affiliated Northern Dynasty Mining:** Seek to develop the mine.

**Alaska:** The State has been critical of EPA in the past and participated in previous litigation challenging EPA's authority under the CWA regarding Pebble. But a new governor who has expressed opposition to the mine assumed office in December 2014. The State is not currently a major actor.

#### MOVING FORWARD:

The case is currently stayed until March 20, 2017. At various times throughout the litigation, the parties have conducted settlement discussions but have been unable to come to an agreement. The parties' joint motion for the stay indicated that the purpose of the stay is for the parties to "continue to pursue ways to resolve this case without the press of litigation, including through the continued exploration of mediation."

LEAD OFFICE/REGION: REGION 10

OTHER KEY OFFICES/REGIONS: OGC, OW, ORD

## Budget and Planning Timeline

	2016				2017										2018		
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Q1 FY2017		Q2 FY 2017			Q3 FY 2017			Q4 FY 2017				Q1 FY 2018			Q2 FY 2018	
<b>Strategic Plan</b> Sets the agency's direction for four years <b>Frequency</b> Every 4 years				Administrator Priorities issued				<b>June 2:</b> Draft Plan framework to OMB		Full-text Draft Plan to OMB		Public comment period		<b>Dec 22</b> Plan to OMB for final clearance		Final FY 18-22 EPA Strategic Plan	
<b>Strategic Reviews &amp; Annual EOY Reviews</b> Assesses progress towards long-term mission and identification of risks <b>Frequency</b> Every 6 months					Senior leadership Strategic Reviews  DA/CFO Results Mtg		FY 17 Midyear senior leadership Mtg Strategic Reviews & FY 19 Planning							FY 17 End-of- year Senior Leadership Mtg			
<b>Enterprise Risk Management</b> Addresses cross-cutting, enterprise risks and challenges toward achieving strategic objectives, and opportunities/actions to address them <b>Frequency</b> Annual review	Senior Managers implement enterprise risk action plans																
	<b>Nov 16-17:</b> Executive Management Council (EMC) Mtg to review 5 identified enterprise risk plans			Technical Guidance on risk identification /assessments				Initial Risk Profile to OMB									
<b>Internal Controls</b> Maintains integrity of EPA resources by identifying and resolving potential management vulnerabilities <b>Frequency</b> Annual review				Internal Control Reviews						Assurance Letters / Risk Register							
<b>Budget</b> Executes, formulates and plans for EPA resources <b>Frequency</b> Annually, <b>Shown by Fiscal Year</b> (FY 2018 and FY 2019 timelines are based on current understanding)		<b>Dec 9</b> FY 2017 CR expires	FY 2017 Develop Operating Plan (after final Appropriations)														
			<b>FY 2018:</b> <i>Transition team may have discussions on funding levels</i>	FY 2018 OMB provides EPA with President's Budget levels	FY 2018 EPA begins internal planning and deliberations	FY 2018 EPA prepares and submits President's Budget to Congress											
						FY 2019 Agency conducts planning and agency priority setting processes		FY 2019 Agency Senior Leaders meet for Budget Forum to discuss funding priorities	FY 2019 OCFO issues final Agency Guidance on numbers and policy decisions	FY 2019 Agency prepares OMB Submission	FY 2019 Agency submits budget to OMB						
<b>NPM Guidance</b> Communicates operational program- specific priorities/strategies consistent with Budget <b>Frequency</b> Every two years				Draft FY 18-19 NPM Guidance			Final FY 18-19 NPM Guidance	NPM/regional negotiation of FY 18 operational measures & regional commitments									
Transition Post-Insurrection EOIA: 00002585																	



# CAMP MINDEN, LOUISIANA

## (U.S. ARMY ARTILLERY SITE CLEANUP)

### ISSUE SUMMARY:

In 2014, EPA entered into an administrative order with the U.S. Army and Louisiana Military Department to clean up munitions and hazardous waste abandoned by Explo Systems, Inc, a now-defunct company, at Camp Minden, a training site for the Louisiana Army National Guard. The ongoing site cleanup, which includes destruction of 16 million pounds of M6, a propellant used in the firing of heavy artillery, is being funded almost entirely by the Army. In addition to the administrative order, EPA has also pursued criminal enforcement against the company owners and several employees.

### UPCOMING MILESTONES:

(b) (5)

### BACKGROUND:

On October 15, 2012, an explosion occurred at a munitions storage igloo on Camp Minden. The damage destroyed the igloo and trailer, shattered windows of dwellings within a four-mile radius, and derailed 11 rail cars near the storage igloo. The explosion contained approximately 124,190 pounds of smokeless powder and a box van trailer containing approximately 42,240 pounds of demilitarized M6.

It was later discovered that the company was storing over 16 million pounds of deteriorating M6 propellant, about 320,000 pounds of clean burning igniter (CBI), and over 100,000 pounds of explosive materials from demilitarized bombs at Camp Minden.

In August 2013, the company filed for bankruptcy and abandoned the explosives at Camp Minden. In September 2013, the Louisiana Military Department took ownership of the abandoned materials.

From October 2012 until June 2014, the Army declined to respond or to pay for or conduct response actions needed at the Site to address the explosives. The Army also refused to comply with clean-up orders issued by EPA and the State of Louisiana in March and June 2014.

Civil Enforcement: In October 2014, EPA, with the assistance of the Department of Justice, negotiated an agreement with the Army, the Louisiana Military Department and the Louisiana Department of Environmental Quality (LDEQ) that provided funding for the Louisiana Military Department to contract for the on-site destruction of the propellant through controlled open burning. The Louisiana Military Department (LMD), the owner of the site, agreed to pay for a portion of EPA past costs and for a portion of EPA oversight costs (if they receive insurance proceeds from the defunct company). At the time the remedy decision was being made, DOD explosives safety teams provided technical assistance and made strong recommendations that the CBI and M6 be destroyed by open burning. EPA also negotiated agreements with other responsible parties to remove additional explosive materials from Camp Minden.

EPA was able to identify several responsible parties to remove some of the materials from Camp Minden. However, the bulk of the material is being removed by LMD. In January 2015 the public became aware of the open burning remedy and expressed concern about the safety of this approach. EPA engaged the community, elected officials, colleges, and interest groups on this issue. After EPA modified the remedy to contained open burn, the Agency was then able to reach agreement with the signers of the agreement that the contained burn system was the most effective and safest approach to destroying the M6. The LMD's contractor constructed a contained burn system that is being used to destroy the 16 million pounds of M6 propellant that was abandoned at the site. The Army agreed to pay the additional costs for the contained burn system. In April 2016, the contained open burn system began operations. As of October 31, 2016, approximately 50% (eight million pounds) of the M6 will have been destroyed. The destruction process is ongoing (b) (5)

Criminal Enforcement: As a result of an EPA criminal investigation, in 2013-2014, seven employees of the company were indicted by a state of Louisiana grand jury on felony explosives and conspiracy charges. Three of these defendants have plead guilty and have been sentenced. Charges were dropped against one defendant due to his cooperation with the government. Three defendants are awaiting state trial.

In August 2016, the company owners and several employees, who contracted with the Army to dispose of the waste, were indicted for their role at the site (felony explosives and conspiracy charges). Both owners and four senior level managers were indicted for conspiring to defraud the federal government by certifying the company was fulfilling its contractual arrangements when in fact it was illegally storing and disposing of demilitarized munitions and hazardous waste. A federal criminal trial date has not been set.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☐ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☒ Other (name of stakeholder) Camp Minden Citizens Advisory Group (CAG)

Media interest has been high, as it involves not only the on-site thermal destruction of M6 propellant, but also the disposal in-place of clean burning ignitor that is considered an emergency.

The public and elected officials are kept informed via updates and meetings, including the Citizens Advisory Group, meetings, workshops and Town Hall meetings.

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: REGION 6

OTHER KEY OFFICES: OLEM, OECA

# CERCLA 108(B) (FINANCIAL ASSURANCE FOR HARD ROCK MINING)

## ISSUE SUMMARY:

The EPA developed a proposed rule, Financial Responsibility Requirements for the Hardrock Mining Industry, which when finalized, would require owners or operators of certain facilities within the hardrock mining industry to demonstrate financial responsibility to cover CERCLA liabilities at their sites. As the EPA's first rule under CERCLA section 108(b) authority, it also would establish a financial responsibility program in Superfund, which would serve as the foundation for future rulemakings under section 108(b) for other industry sectors. The Agency also developed for publication in the *Federal Register* a determination that the Agency will issue a notice of proposed rulemaking on additional classes of facilities within three industry sectors: chemical manufacturing; petroleum and coal products manufacturing; and electric power generation, transmission, and distribution.

## UPCOMING MILESTONES:

- **January 12 – Mar 12, 2017** – Various public outreach activities with different stakeholders.
- **March 12, 2017** – End of the 60-day public comment period for the proposed hardrock mining rule - - comments due.
- **December 1, 2017** – Court ordered deadline to sign Financial Responsibility Requirements for the Hardrock Mining Industry final rule.

## BACKGROUND:

CERCLA section 108(b) directs the President to develop requirements that classes of facilities establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances at their sites.

The EPA identified classes of facilities within the hardrock mining industry as those for which it would first develop financial responsibility requirements in a *Federal Register* notice dated July 28, 2009. EPA identified the three additional industries mentioned above in an Advance Notice of Proposed Rulemaking dated January 6, 2010.

In August 2014, Earthworks, the Sierra Club, Great Basin Resource Watch, Amigos Bravos, Idaho Conservation League, and Communities for a Better Environment filed a lawsuit in the U.S. Court of Appeals for District of Columbia Circuit. The court issued an order requiring, among other actions, the Administrator to sign a notice of proposed rulemaking by December 1, 2016, for the hardrock mining industry, and to sign a notice of its final action by December 1, 2017. EPA met the schedule for the proposed rule, and FR Notices were published January 11, 2017.

(b) (5)

The Bureau of Land Management (BLM) and U.S. Forest Service have mining programs that include financial assurance requirements for reclamation and closure. EPA was thus asked to consider whether this rule is duplicative, or could make the implementation of their programs more difficult. EPA has been clear that financial assurance

requirements for reclamation and closure are distinct from financial responsibility requirements under CERCLA section 108(b). The former are designed to assure implementation of the closure and reclamation requirements and, so far as EPA is aware, they do not make funds available more generally for CERCLA response actions, as needed. This proposed rule is intended to help ensure that funding is available so that the cost of cleaning up environmental contamination does not fall to the taxpayers, and to incentivize environmentally protective practices.

Some states also have mining programs that include financial assurance requirements, such as requirements to help ensure proper end-of-life mine closure. Those programs vary in scope. Some states have suggested that the rule is duplicative of those state requirements and thus unnecessary. In addition, because of an express preemption provision in CERCLA section 114(d), some states are also concerned that implementation of CERCLA section 108(b) requirements could jeopardize states' ability to enforce their own financial assurance requirements. EPA stated its view that evidence of financial responsibility under Section 108(b) was not intended to preempt state or local mining reclamation and closure requirements. (b) (5)

EPA conducted outreach to stakeholders throughout the proposed rulemaking process, including through a [Small Business Advocacy Review \(SBAR\) Panel](#).

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

(b) (5)

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OLEM

OTHER KEY OFFICES/REGIONS: OGC, OECA, OW, OP, ORD, REGIONS 2, 3, 8, 9, 10

# CHLORPYRIFOS (INSECTICIDE)

## ISSUE SUMMARY:

(b) (5)

Chlorpyrifos is one of the most widely used insecticides for food crops, and is also registered for non-food and public health uses (e.g., as a mosquito adulticide).

## UPCOMING MILESTONES:

- **March 31, 2017** - The 9<sup>th</sup> Circuit Court ordered EPA to finalize its decision on the Pesticide Action Network North America (PANNA) and Natural Resources Defense Council's (NRDC) petition and the chlorpyrifos tolerance rule.

## BACKGROUND:

EPA must respond to an NRDC and PANNA petition seeking the revocation of all chlorpyrifos tolerances and cancellation of all registrations for chlorpyrifos, citing human health concerns. In October 2015, EPA issued a proposed tolerance revocation for chlorpyrifos based on the science as it stood at the time. In September 2016, EarthJustice submitted a new petition seeking the suspension and cancellation of all chlorpyrifos registrations, based upon worker risk concerns. (b) (5)

There are several scientific issues EPA has been working to resolve before issuing a final decision, including determining the critical effect, and related uncertainties, for use in human health risk assessment. The 2014 human health risk assessment that supported the 2015 proposal utilized toxicology studies conducted in animals to derive the endpoint for risk assessment. However, evidence from human epidemiology studies indicates effects may occur at lower levels than indicated by the animal toxicology database. In 2016, EPA consulted with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) on using a specific epidemiology study conducted by Columbia University that found neurodevelopmental effects in children whose mothers were exposed to chlorpyrifos during pregnancy. The SAP advised the agency that EPA's proposed use of the study was inappropriate, but it also concluded that the current point of departure (PoD) used for calculating risk is not protective.

In November 2016, EPA issued a Notice of Data Availability (NODA) for the October 2015 proposed rule with a 60-day public comment period. The comment period on the NODA closed January 17, 2017. The notice includes a revised human health risk assessment, drinking water assessment and supporting information. At the same time, EPA notified the World Trade Organization of EPA's impending tolerance decision.

## KEY EXTERNAL STAKEHOLDERS:

☐ Congress    ☒ Industry    ☒ States    ☐ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☐ Local Government    ☒ Other: Grower Groups

Stakeholder interest has focused on health concerns for children and agricultural workers; the potential loss of a widely used insecticide for food crops; EPA's use of the Columbia University data in a program that historically has not had available epidemiology data to assess risk for pesticides; and the impact of the tolerance decision on the mosquito control use of chlorpyrifos.

MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OCSPP

OTHER KEY OFFICES/REGIONS: OGC, ORD, OCHP

# Clean Power Plan

## ISSUE SUMMARY:

The Clean Power Plan (CPP) sets the first national standards to reduce carbon pollution from existing power plants. In February 2016, the Supreme Court stayed the CPP. States and stakeholders do not have to comply with the CPP while the stay is in effect.

## UPCOMING MILESTONES:

- **First quarter of 2017**—CPP litigation – D.C. Circuit Decision in *West Virginia v. EPA*.
- **First quarter of 2017**—Carbon Pollution Standards litigation (new source standards) – final briefs from all parties due February 2017. Oral argument is scheduled for April 17, 2017.

## BACKGROUND:

- On August 3, 2015, EPA signed final rules to reduce emissions of CO<sub>2</sub> from power plants:
  - The CPP, which consists of the CO<sub>2</sub> emission guidelines for existing fossil fuel-fired power plants under Clean Air Act (CAA) section 111(d); and
  - Carbon Pollution Standards (CPS), which are CO<sub>2</sub> standards for new, reconstructed and modified fossil fuel-fired power plants under CAA section 111(b).
  - The CPP provides states considerable flexibility to tailor plans to their individual circumstances.
- Also on August 3, 2015, EPA signed proposed model rules to aid state planning for CPP implementation and proposed federal plan requirements that would be triggered for any state that does not comply with submission requirements.
  - The model rules aid states as they prepare CPP plans, including regulatory text that states can adopt or modify when developing their CPP plans.
  - Or, states can develop customized state plans that are tailored to the unique circumstances in their state instead of using the model rules.
  - On December 19, 2016, EPA withdrew the final model rules from interagency review and made working drafts available to the public. EPA also sent a letter to 14 states notifying them of this information and responding to an earlier request for additional information and technical assistance related to the CPP.
- The Clean Energy Incentive Program (CEIP) is a voluntary “matching fund” program that states can use to incentivize early investment in eligible renewable energy, as well as energy-efficiency projects in low-income communities.
- CPP emission reductions are phased in from 2022 to 2030 and follow existing industry trends toward cleaner generation like natural gas and renewables.
- States may show that their in-state power plants are achieving the limits by meeting a mass-based or rate-based state goal. States may rely on trading in their plans.
- The CPP is estimated to reduce CO<sub>2</sub> emissions from the utility power sector by approximately 32 percent from 2005 CO<sub>2</sub> emission levels by 2030



- Estimates are that these reductions, along with reductions in other air pollutants resulting directly from the CPP, will result in net benefits of \$25 to \$45 billion. On February 9, 2016, the U.S. Supreme Court issued a stay of the CPP while the court is reviewing the rule. Oral arguments in the D.C. Circuit Court were held September 27, 2016. Key issues included:
  - EPA's authority to use "beyond the fence-line" measures like generation-shifting as part of the best system of emission reduction, which is the basis for the required amount of emission reduction.
  - EPA's authority to regulate CO<sub>2</sub> under CAA section 111(d) (this issue involves the interplay between sections 111 and 112) and constitutional issues.
- EPA received and is reviewing 38 petitions for reconsideration on the CPP. Potential responses are under development. The reconsideration issues significantly overlap with the litigation issues.

#### Carbon Pollution Standards (CPS)

- New (including modified and reconstructed) fossil fuel-fired power plants must meet CO<sub>2</sub> limits.
- The CPS is also the subject of litigation. Both the final rule and EPA's denial of five petitions for reconsideration on the CPS (May 6, 2016) are at issue. The CPS is not stayed.
- The outcome of CPS litigation could impact the CPP.

#### KEY EXTERNAL STAKEHOLDERS:

- |  |  |  |  |   |  |
|--|--|--|--|---|--|
| <input checked="" type="checkbox"/> Congress | <input checked="" type="checkbox"/> Industry         | <input checked="" type="checkbox"/> States | <input checked="" type="checkbox"/> Tribes | <input checked="" type="checkbox"/> Media | <input checked="" type="checkbox"/> Other Federal Agency |
| <input checked="" type="checkbox"/> NGO      | <input checked="" type="checkbox"/> Local Government | <input type="checkbox"/> Other: _____      |  |   |  |

#### Key concern(s):

(b) (5)

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS: OGC, OECA, OCIR



# CLEAN WATER RULE LITIGATION

## ISSUE SUMMARY:

In May 2015, EPA and the Department of the Army promulgated the Clean Water Rule to define “waters of the United States” in response to the Supreme Court’s repeated suggestions that the Agencies should clarify the statutory phrase through regulatory action.

The Clean Water Rule was immediately challenged by industry, States, and environmental groups, and the U.S. Court of Appeals for the 6<sup>th</sup> Circuit stayed implementation of the rule nationwide in the fall of 2015. More than 20 district court cases are stayed (and a few dismissed), pending the 6<sup>th</sup> Circuit’s decision and ultimate review of the merits by the Supreme Court. On January 13, 2017, the US filed its brief in the 6<sup>th</sup> Circuit defending the Clean Water Rule.

The Supreme Court has granted certiorari on a petition asking for review of the February 2016 6<sup>th</sup> Circuit decision that it has exclusive jurisdiction over the case under CWA Section 509.

## UPCOMING MILESTONES:

- TBD -- awaiting briefing schedule from Supreme Court

## BACKGROUND:

The Clean Water Act is the single most important statute for protecting America’s waters against pollution, degradation, and destruction. In the continental United States, about 117 million people, over one third of the total U.S. population, get some or all of their drinking water from public drinking water systems that rely at least in part on intermittent, ephemeral, or headwater streams. The scope of the “waters of the United States” establishes the limits of the most important water quality protection programs in the Clean Water Act. The Clean Water Act prohibits any person from discharging pollutants into the “waters of the United States,” except as specifically allowed.

In 2001 (SWANCC) and 2006 (Rapanos), the Supreme Court issued decisions re-examining the Agencies’ longstanding interpretation of the scope of “waters of the United States” but split on the proper standard for determining jurisdiction. The SWANCC and Rapanos decisions resulted in the Army Corps of Engineers and EPA evaluating the jurisdiction of waters on a case-specific basis far more frequently, impeding clear and efficient implementation of the CWA.

In the Clean Water Rule, the agencies defined “waters of the United States”, based upon the text of the statute, Supreme Court decisions, the best available peer-reviewed science, public input, and the agencies’ technical expertise and experience in implementing the statute. This rule makes the process of identifying waters protected under the CWA easier to understand, more predictable, and consistent with the law and peer-reviewed science, while protecting the streams and wetlands that form the foundation of our nation’s water resources. The rule also articulates exemptions associated with agricultural or farming practices.

The Clean Water Rule was immediately challenged by industry, States, and environmental groups, and after the rule had been in effect for more than a month in all but 13 states (where the rule was stayed by a district court), the U.S. Court of Appeals for the 6<sup>th</sup> Circuit stayed implementation of the rule nationwide in the Fall of 2015. There were numerous complaints filed in district court and petitions for review filed in the courts of appeal, with more than 100 petitioners. The petitions for review were consolidated in the 6<sup>th</sup> Circuit. Petitioners have argued that the rule is inconsistent with the CWA, the Constitution, and Supreme Court precedent. In addition, Petitioners have argued that the rule is arbitrary and capricious and that the public was not given sufficient notice of some provisions of the final rule.

Since the CWR was stayed in 2015, EPA and the Corps have been implementing the agencies' prior 1987 regulations and their 2008 Jurisdiction Guidance. Much of the concern that has focused on the CWR reflects broader issues associated with the CWA section 404 permit program and assertions that the permitting process is costly, lengthy, and unpredictable. The agencies are working to improve the permitting process and increase transparency. That process will likely continue in 2017.

Senate and House Committees have also recently released majority staff reports alleging significant issues associated with development of the CWR and 404 program impacts on farmers. The reports include assertions that the CWR 'abandoned' sound science, was based on a political agenda, and excluded input from Corps staff. The reports also allege that the agencies are already implementing the CWR by eliminating longstanding agriculture exemptions and placing new burdens on farmers. These conclusions are incorrect but will require effort into 2017 to address and reflect a strong interest by some in Congress to prevent the CWR from being implemented. In addition, the Clean Water Rule has been the subject of several proposed funding restrictions and proposed bills to force the agencies to retract it.

On May 31<sup>st</sup>, 2016 in *Corps v. Hawkes*, the Supreme Court unanimously (8-0) held that a U.S. Army Corps of Engineers approved jurisdictional determination (JD) concerning the presence of "waters of the United States" under the CWA is a final agency action subject to judicial review. The Court's decision resolves a conflict between circuit courts on this matter. The JD in the Hawkes case was based on the longstanding definition of "waters of the U.S." and the Clean Water Rule was not at issue in the litigation. The Corps recently issued a regulatory guidance letter confirming that it will continue to issue jurisdictional determinations and providing guidance to regulators and the public on how best to determine which type of JD is appropriate.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Government      ☐ Other (name of stakeholder) \_\_\_\_\_

Concerns have been expressed about the process to develop the rule, whether there was sufficient public notice for some of the provisions in the final rule, and whether the scope of the waters protected under the rule is too broad or too narrow.

#### MOVING FORWARD:

- Briefing the merits of the rule should be completed in March 2017. Industry has filed a petition with the Supreme Court for a writ of certiorari on the question of whether the 6<sup>th</sup> Circuit's determination that it has

exclusive jurisdiction over the challenges to the rule is correct. If the Supreme Court grants the petition that would likely have an effect on the litigation in the 6<sup>th</sup> Circuit.

- When the litigation is resolved, the agencies will be prepared to work closely with state, tribal, and local government organizations to collaboratively and efficiently implement the Clean Water Rule.

LEAD OFFICE/REGION: OGC

OTHER KEY OFFICES/REGIONS: OW

# Climate Change and the Transportation Sector

## ISSUE SUMMARY:

The Clean Air Act provides authority and the obligation for the EPA to establish greenhouse gas (GHG) standards for the transportation sector. Transportation is responsible for 26% of total U.S. GHG emissions and is poised to overtake electricity as the highest GHG-emitting sector in 2016. This paper covers the EPA's regulatory, reporting, and implementation actions that address GHGs as they relate to motor vehicles and transportation fuels.

## UPCOMING MILESTONES:

- **May 2017**—Expect to propose aircraft GHG standards by the end of 2017; briefings for senior management will begin early in the year to be ready for key decisions by May.
- **Early 2017**—Annual Renewable Fuel Standard (RFS) rulemakings will be in development in early 2017 (see RFS issue paper for further details).

## BACKGROUND:

- Three key factors that influence transportation GHG emissions are vehicle efficiency, carbon intensity of fuels, and vehicle miles traveled (VMT). EPA works on all three of these factors with a combination of regulatory and voluntary programs.
- The EPA has finalized rules establishing GHG standards for model year 2012-2025 light-duty highway vehicles and model year 2014-2027 heavy-duty highway vehicles, both in coordination with the development of DOT fuel economy standards. EPA has also participated in the development of the recently-adopted aircraft CO<sub>2</sub> standards by the International Civil Aviation Organization, issued the EPA Endangerment Finding for aircraft GHG emissions, and has been implementing the Renewable Fuel Standard (RFS).
- EPA's voluntary SmartWay Transport Partnership reduces transportation CO<sub>2</sub> emissions by incentivizing freight transportation efficiency. Since its inception just over ten years ago, SmartWay's 3,500 partners reduced 73 million metric tons of CO<sub>2</sub> from goods movement, saving \$25 billion in fuel and avoiding 1.5 million tons NO<sub>x</sub> and PM.
- Transportation and other diesel mobile sources are the largest sources of black carbon (BC), a near-term climate forcer, which particularly affects climate sensitive regions such as the Arctic. The U.S., through EPA and the State Department, is providing leadership on the Arctic Council, and U.S. emissions of BC are decreasing significantly, largely due to EPA's regulation of particulate matter (PM 2.5). For example, new engine requirements have resulted in a 32% reduction in BC emissions from U.S. mobile sources between 1990 and 2005. As vehicles and engines meeting new regulations are phased into the fleet, a further 86% reduction in BC emissions from mobile sources is projected from 2005 to 2030.

- Although critical steps, these efforts on their own will be insufficient to achieve the climate goals of the Paris Agreement. Further steps to reduce emissions from vehicles, lower the carbon content of fuel, and improve the efficiency of transport of people and goods will be necessary.
- There is a strong interest in the electrification of transportation, with firms making significant investments in product offerings and infrastructure.
- Transformational changes in transportation are underway, driven by the rise in shared mobility services (e.g., Uber, Lyft), advances in self-driving/automated vehicles, escalating congestion and an aging infrastructure, and an increasing interest in reshaping our cities around people rather than cars.

#### KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agencies  
☒ NGO      ☒ Local Government      ☐ Other (name of stakeholder): \_\_\_\_\_

From their different perspectives, all of these stakeholders are interested in EPA's transportation GHG regulations and programs, which affect essentially all new vehicles in the coming years, including issues of technological feasibility, air quality benefits, and costs. (b) (5)

[REDACTED]

#### MOVING FORWARD:

- EPA will continue to implement the light-duty and heavy-duty GHG programs through the vehicle and engine certification process and ongoing assessment of overall compliance with the standards.
- EPA is proceeding through the standard CAA/APA rulemaking process for the proposed aircraft GHG standards and coordinating with the Federal Aviation Administration.

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS:

# CLIMATE RESILIENCE & ADAPTATION

## ISSUE SUMMARY:

Many of the outcomes EPA is trying to attain (*e.g.*, clean air, safe drinking water) are sensitive to extreme weather events and fluctuations in the background climate. EPA is therefore (1) anticipating and planning for climate variability and incorporating consideration of such variability into its programs, policies, rules and operations to ensure they are effective, and (2) strengthening the adaptive capacity of its partners in states and tribes to whom EPA has delegated authorities critical to attaining the agency's mission, as well as local communities and businesses. Increasing climate resilience can help ensure EPA continues to fulfill its statutory, regulatory, and programmatic requirements in the face of natural disasters and variations in the background climate. It can also reduce costs to the Federal Government, which incurred direct costs over \$357 billion due to extreme weather and wildfires in the last decade.

## BACKGROUND:

Central elements of the agency's climate resilience efforts are (1) building the "adaptive capacity" of EPA staff and partners in the states, tribes, and local communities through the provision of training on weather and climate resilience, and (2) tools to empower communities to implement adaptation strategies. EPA has already made significant progress in both of these areas:

**Training:** EPA has trained over 6,000 employees (more than 40% of its workforce) on climate resilience and adaptation practices. EPA also developed a training module for local governments, working with its Local Government Advisory Committee. The Office of Water and the Office of Land and Emergency Management have developed program-specific training modules.

**Toolkits:** EPA programs and regions have developed a number of tools to help communities (*e.g.*, water utilities) become more resilient and adapt, and is providing technical assistance to help them use the tools. In October 2016, EPA launched a new online Adaptation Resource Center (ARC-X) for local government officials and community leaders. ARC-X is a one-stop shop for EPA resources on climate resilience and supports the efforts of local governments across the nation to continue delivering reliable, cost-effective services regardless of extreme weather or variations in the climate.

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress     ☒ Industry     ☒ States     ☒ Tribes     ☐ Media     ☒ Other Federal Agency  
☐ NGO     ☒ Local Governments     ☒ Other: Local Communities

EPA's key stakeholders are the 40,000 local communities – many of which are middle- to smaller-sized underserved communities – and 566 tribes vulnerable to the impacts natural disasters and variations in the climate. In addition, EPA works closely with other federal agencies to improve collaboration and streamline the sharing of federal resources to increase the nation's climate resilience.

MOVING FORWARD:

(b) (5)



LEAD OFFICE/REGION:

OTHER KEY OFFICES/REGIONS:

- Lead Office: Office of Policy (Office of the Administrator); Lead EPA Region: Region 4

# COAL COMBUSTION RESIDUALS (CCR) RULE

## ISSUE SUMMARY:

The Coal Combustion Residuals (CCR) rule established minimum national criteria (including technical standards; groundwater monitoring; corrective action; and closure and post closure care) that all CCR disposal units must meet. There is ongoing litigation over parts of the rule as well as regulatory development activities as a result of a partial settlement. In addition, a variety of site-specific issues have arisen due to requirements of the CCR rule and other statutes, including the Clean Water Act. Finally, the 2016 Water Infrastructure Improvement for the Nation (WIIN) Act provided States the ability to submit permit programs covering CCR disposal units to EPA for approval.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]

## BACKGROUND:

Coal Combustion Residuals generally consist of fly ash, bottom ash, boiler slag, and flue gas desulfurization materials and are the residuals from burning coal. The residuals can be managed either wet (in surface impoundments) or dry (in landfills). In December 2008, a massive failure of a Tennessee Valley Authority (TVA) surface impoundment occurred. As a result, EPA committed to developing rules to cover CCR disposal units and to evaluate the structural stability of CCR surface impoundments. EPA promulgated its final rule in December 2014, and it was published in the Federal Register in April 2015. The rule established minimum national criteria, which all disposal units must meet.

(b) (5) [REDACTED]

CCRs are one of the largest industrial waste streams, with over 117.3 million tons generated in 2015. CCRs contain contaminants of concern such as arsenic and selenium and so need to be managed properly. Moreover, EPA has seen a number of “damage cases” where groundwater contamination has been directly tied to CCRs. Dust from dry handling of CCRs is also an issue for many communities.

CCRs may be recycled or beneficially used, and EPA has supported the safe/appropriate reuse of these materials.

## KEY EXTERNAL STAKEHOLDERS:



☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☐ Other: \_\_\_\_\_

Some external stakeholders are concerned with implementation of the rule. (b) (5)

Other industry groups are most interested in how the rule affects the beneficial use of CCRs (e.g. in concrete, road bed, wallboard).

The NGO community, especially the environmental justice community, is most concerned with the effect existing and new CCR units have on surrounding communities (notably groundwater contamination, but also other issues such as truck traffic and wastewater discharges at disposal units). The U.S. Civil Rights Commission conducted an investigation of whether the CCR rule adequately protects environmental justice communities and issued a report in September 2016, (b) (5) concluding that it does not.

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OLEM

OTHER KEY OFFICES/REGIONS: OW, OECA,  
OCIR, REGIONS 3, 4, 5

# DENKA FACILITY IN LOUISIANA

## (CHLOROPRENE EMISSIONS FROM NEOPRENE MANUFACTURING)

### ISSUE SUMMARY:

In March 2016, EPA and the Louisiana Department of Environmental Quality (LDEQ) found elevated concentrations of chloroprene in ambient air in the neighborhoods surrounding the Denka Performance Elastomer (Denka) facility in LaPlace, Louisiana. In EPA's National Air Toxics Assessment (NATA) published in December 2015, exposure to chloroprene emissions was identified as posing an increased lifetime cancer risk to people. In July 2016, EPA, LDEQ, and Denka met with local and regional citizens to inform them about potential health risks of chloroprene and actions the facility was evaluating to control emissions.

### UPCOMING MILESTONES:

(b) (5)

### BACKGROUND:

The Denka facility (formerly DuPont Pontchartrain Works) was built in 1964 by the Dupont Company and was purchased by Denka from DuPont in November 2015. This facility is the only place in the U.S. currently manufacturing neoprene. EPA became aware of the potential risk associated with the facility's emissions of chloroprene, a primary chemical used in the manufacture of neoprene, in December 2015 as a result of NATA.

**EPA Actions:** In March 2016, EPA and LDEQ collected ambient air "grab" samples from six locations, including an elementary school, and analyzed the air samples for chloroprene. Analytical results showed elevated concentrations of chloroprene in multiple samples, which confirmed that the emissions from the facility were in the ambient air, and indicated a potential increase in health risk for the nearby residents and a need for additional monitoring.

In May 2016, EPA enhanced our monitoring and began a long-term ambient air monitoring program. Shortly thereafter, EPA inspected the facility. Also in summer 2016, LDEQ initiated discussions with Denka to reduce emissions of chloroprene. At the State's direction, the company provided a modeling study to assess the ambient air quality impact of emissions from the facility, installed fence-line monitors around the facility, and assessed potential control technologies.

In August 2016, Denka representatives met with EPA to discuss the Agency's 2010 assessment of the health hazard associated with chloroprene; the company also inquired about the processes for challenging EPA's assessment. Denka expressed that it will seek a review of the science used to characterize the health risk, questioning EPA's determination and peer review processes. The Agency indicated to Denka that the scientific evaluation is robust and has no plans to revise the assessment.

In January 2017, LDEQ and Denka signed a formal Administrative Order on Consent to reduce emissions through installation of a thermal oxidizer and other measures by the end of December 2017. This Order outlines the company's voluntary commitment to reduce emissions and report on progress.

EPA is coordinating closely with LDEQ throughout its monitoring and inspection efforts and has committed to maintaining strong communication/coordination with State and local governments as well as with local citizens. EPA created a web site to provide information, including the air monitoring data, to the community <https://www.epa.gov/la/laplace-st-john-baptist-parish-louisiana>). Data from air monitors is posted several times each month.

**Estimated Risks from Emissions:** The NATA is a study of potential risks associated with air emissions from industrial facilities, using air emissions data reported by industrial facilities. The NATA is a screening tool and, in this case, estimated a high risk (8 in 10,000 increased lifetime cancer risk) associated with the release of chloroprene from the Denka facility.

In **2010**, EPA determined that chloroprene is "likely to be carcinogenic to humans" and that the primary exposure route of concern is inhalation. Accordingly, EPA established an inhalation Unit Risk Estimate, which is an estimate of the increased cancer risk from inhalation exposure for a lifetime, and used this number to calculate the risks for chloroprene in the NATA.

#### KEY EXTERNAL STAKEHOLDERS:

- ☐ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency ASTDR  
☒ NGO      Louisiana Environmental Action Network (LEAN)      ☐ Local Governments  
☒ Other (name of stakeholder) LaPlace citizens, St. John the Baptist Parish officials

(b) (5)

There has been a high level of media interest in this site. Local environmental stakeholders have held meetings and posted information on their individual websites.

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE:

REGION 6

OTHER KEY OFFICES: OAR/OECA /ORD

# DOE WASTE ISOLATION PILOT PLANT (NEW MEXICO) (NUCLEAR REPOSITORY)

## ISSUE SUMMARY:

The Department of Energy (DOE) is working to restart the Waste Isolation Pilot Plant (WIPP) which is the only permanent nuclear repository for defense-related transuranic (TRU) waste in the nation. The facility was closed in 2014 after a release of radioactive contamination. A diesel fire in the repository occurred prior to the release, but was unrelated. EPA and the State of New Mexico will evaluate the remedial actions taken by DOE to determine if they have been effectively implemented to decontaminate, improve the ventilation, and assure the safety of the workers and environment.

## UPCOMING MILESTONES:

- (b) (5)

## BACKGROUND:

**Facility:** The facility is located underground in a stable salt bed at 2150 feet below the surface, 24 miles east of Carlsbad, New Mexico. Mandated by the Land Withdrawal Act (Act) of 1992, WIPP has the capacity to permanently store 175,500 cubic meters of TRU waste. The facility accepted the first TRU waste in 1998. Currently, 90,627 cubic meters of contact-handled waste and 357 cubic meters of remote-handled waste have been emplaced in the facility. The WIPP is limited by the Act to disposal of only defense-related TRU waste.

**Events leading up to close of the facility:** In February 2014, there was a release of radiation from the facility due to a chemical reaction in one of the stored containers. The container ruptured and released radioactive contamination into the air 2150 feet below surface. Automatic continuous air monitors alerted and the facility switched to HEPA filtration in less than two minutes. Since that time, DOE has been cleaning up the damage from the earlier fire and decontaminating the radiation contamination in the underground. Adequate ventilation and ground control have limited progress in the recovery operation.

**EPA role:** As part of its WIPP oversight, the EPA inspects this facility each year for compliance with the Agency's radioactive waste disposal regulations and to confirm commitments made by DOE in its original Compliance Certification Application, as well as subsequent Re-Certification Applications. The Act requires EPA to issue and implement regulations regarding the disposal of transuranic waste as well as other radioactive wastes not approved for WIPP. EPA is required by the Act to evaluate all changes in conditions or activities at WIPP every five years to

determine if the facility continues to comply with EPA's disposal regulations. In addition, the Act directs DOE to submit to EPA an environmental compliance report every two years. EPA received the latest environmental compliance report on October 31, 2016. EPA has a limited role in reviewing management and operations as identified in the radioactive waste regulations. In addition, EPA oversees the State of New Mexico's hazardous waste program, which applies to all TRU waste because it is mixed with hazardous waste, and directly permits the WIPP for storage and disposal of PCB-containing waste. The State will inspect the WIPP after the recovery process is complete.

**Description of TRU waste:** TRU waste is defined by the Act as "waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste with half-lives greater than 20 years, except for (a) high-level radioactive waste, (b) waste that the Secretary of Energy has determined with concurrence of the Administrator of the EPA, does not need the degree of isolation required by the disposal regulations, or (c) waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with part 61 of title 10 Code of Federal Regulations."

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☐ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) City of Carlsbad

(b) (5)

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: REGION 6, OAR

OTHER KEY OFFICES:

# DRINKING WATER ACTION PLAN

## ISSUE SUMMARY:

While America's drinking water remains among the safest in the world, events in Charleston, West Virginia; Toledo, Ohio; and Flint, Michigan, highlighted drinking water challenges many communities face. To help address these challenges, EPA is issuing a Drinking Water Action Plan, urging all levels of government, utilities and other key stakeholders to work together on creative, pragmatic new approaches, leveraging information, partnerships, and new technologies to better protect public health.

## BACKGROUND:

Safe drinking water is critical to our nation's public health and economic vitality. The U.S. drinking water system, supported by the Safe Drinking Water Act and the work of federal, tribal, state, and local governments and utilities nationwide, is one of our country's greatest public health achievements. However, the drinking water sector faces a growing array of challenges that, if left unaddressed, can pose serious risks to public health and local economies including:

- Aging infrastructure;
- Limited funding and management capacity;
- Degradation of sources of drinking water;
- Risks from unregulated contaminants;
- Threats associated with drought, floods, and other disruptions; and
- Ongoing challenges related to the presence of lead in drinking water systems.

Advancements in monitoring technologies are allowing us to detect new contaminants in our drinking water from industrial chemicals, pharmaceuticals, and other sources that may pose risks to public health. Water infrastructure improvements of at least \$384 billion will be needed through 2030 to maintain, upgrade, and replace our country's infrastructure. Too often, the toughest infrastructure challenges are found in low-income, minority communities and small communities that often lack the resources, management capacity, and information about their water quality to address failing water infrastructure.

There are tremendous opportunities for innovation and progress, thanks to advances in drinking water treatment technology; new approaches to information management, communications, and water infrastructure finance; emerging partnerships spanning government, utilities and civil society; and lessons learned in over 40 years of implementing the Safe Drinking Water Act (SDWA).

To address challenges facing our drinking water systems, in April 2016, [EPA announced a new strategic engagement](#) with key partners and stakeholders to develop and begin implementation of a national Drinking Water Action Plan to address the critical drinking water challenges facing our country.

As a part of this targeted engagement effort, EPA hosted meetings, webinars, and other forums with state co-regulators, tribal representatives, local governments, regulated drinking water utilities, and public health, environmental and community stakeholders on priority issues related to effective SDWA Implementation.

In November 2016, EPA released its [Drinking Water Action Plan](#). The plan serves as a national call to action, urging all levels of government, utilities, community organizations, and other stakeholders to work together to increase the safety and reliability of drinking water. It reflects input received from state, local, and tribal government officials; drinking water utilities; community groups; and environmental organizations. The plan is organized around six priority areas in which there is significant opportunity for leadership from states and other partners. The priority areas include:

- Promoting Equity and Building Capacity for Drinking Water Infrastructure Financing and Management in Disadvantaged, Small, and Environmental Justice Communities;
- Advancing Next Generation Oversight for the Safe Drinking Water Act;
- Strengthen Source Water Protection and Resilience of Drinking Water Supplies;
- Taking Action to Address Unregulated Contaminants;
- Improving Transparency, Public Education, and Risk Communication on Drinking Water Safety; and
- Reducing Lead Risks through the Lead and Copper Rule.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☒ Other: Environmental Justice Organizations

Many stakeholders, including states, utilities, and environmental organizations, were supportive of the plan and expressed appreciation and willingness to continue working together to implement the plan's proposed actions.

#### MOVING FORWARD:

(b) (5)  
[Redacted text block]

LEAD OFFICE/REGION: OW

OTHER KEY OFFICES/REGIONS: ORD, OECA, ALL REGIONS



# DRINKING WATER PAG

## (FOR RADIOLOGICAL INCIDENTS)

### ISSUE SUMMARY:

If a radiological incident were to occur—such as an accident at a nuclear power plant like the one that occurred in Fukushima, Japan in 2011, or the detonation of an improvised nuclear device—radioactive material could be released into rivers, lakes, and streams used by public water suppliers, endangering public health and safety. To help authorities protect the public from the harmful effects of radiation in drinking water should such a nationally significant radiological emergency occur, EPA released a [non-regulatory protective action guide \(PAG\) for drinking water](#) in January 2017. The drinking water PAG is a risk-based value intended for use by emergency managers to determine when alternative drinking water should be provided and use of contaminated water supplies should be restricted.

### BACKGROUND:

As part of its mission to protect human health and the environment, EPA publishes protective action guides to help federal, state, local, and tribal emergency response officials make radiation protection decisions during emergencies. A PAG is the projected dose to an individual from a release of radioactive material at which a specific protective action to reduce or avoid that dose is recommended. Emergency management officials use PAGs for making decisions regarding how best to protect the public from exposure to radiation during an emergency such as advising or requiring evacuation, shelter-in-place, temporary relocation, and/or water and food restrictions.

On January 11, 2017, EPA finalized the drinking water PAG. The drinking water PAG is a new addition to the Agency's 2016 [Protective Action Guides and Planning Guidance for Radiological Emergencies](#), which replaces the 1992 PAG manual. EPA's drinking water PAG was developed to assist states and communities with planning and decision-making in the first year following a nationally significant radiological emergency. It is not intended for long-term or everyday use.

Under the Safe Drinking Water Act (SDWA), the Agency has established regulatory standards, called "maximum contaminant levels," for radiological contaminants in drinking water. EPA's drinking water standards for radionuclides are based on lifetime exposure to contaminants in drinking water. While the SDWA framework is appropriate for day-to-day normal operations, it does not provide the necessary tools to assist emergency responders with determining the need for prioritizing protective actions during the intermediate phase of a response.



The drinking water PAG does not change or affect EPA's drinking water standards for radionuclides; water systems exceeding standards, regardless of the reason, are in violation of the SDWA. Impacted public water systems must take actions to return to drinking water regulatory limits as soon as practicable after a radiological emergency.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☐ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

When EPA published its Drinking Water PAG proposal in June 2016, there was a high level of public scrutiny and concern from environmental stakeholders who opposed the proposal.

(b) (5)

Two letter writing campaigns opposing the PAG, one from Food & Water Watch and the other from an unknown sponsor, were submitted during the public comment period for the proposed drinking water PAG.

The Nuclear Energy Institute, Conference of Radiation Control Program Directors, Health Physics Society, and the American Water Works Association submitted comments in favor of a drinking water PAG for radiological emergencies.

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OAR/OW

OTHER KEY OFFICES/REGIONS:

# East Chicago Indiana (Lead-Contaminated Soil)

## ISSUE SUMMARY:

In April 2016, EPA received data showing very high levels of lead in soil at the West Calumet Housing Complex (WCHC), which is located in Zone 1 of the USS Lead Superfund NPL Site (Site). Shortly thereafter, the mayor announced that HUD would permanently relocate all of the residents (over 260 homes) and that the public housing complex would be demolished. Since that time, EPA has been taking steps to reduce exposures to lead-contaminated soil, including cleaning homes of residents and offering temporary hotel accommodations to residents during this cleaning process.

## UPCOMING MILESTONES:

- **January 28, 2017** -- EPA will hold a multiagency open house to provide an update about the USS Lead site. East Chicago residents will be able to talk one-on-one with EPA and other agencies.
- **Fall 2017** - EPA will release a revised Feasibility Study to evaluate remedial alternatives. That study will be the basis for any revisions to the currently selected remedy for Zone 1. Once HUD determines the disposition of the WCHC buildings, EPA will reassess the currently selected remedy and determine if any revisions are necessary.

## BACKGROUND:

The Site is named for the former lead smelting facility (USS Lead) that occupied the southern portion of the Site. The northern portion of the Site is a residential neighborhood which EPA has been divided into Zones 1 (the WCHC), 2 and 3. Another lead smelting facility (Anaconda) operated in Zone 1 until the late 1960s, when that facility was demolished. The WCHC was built in the 1970s on the footprint of the Anaconda facility.

In 2008, EPA proposed the Site to the NPL. In 2009, EPA finalized the Site on the NPL. In 2008 and 2011, EPA cleaned up of a total of 29 residential yards as removal actions.

In 2012, EPA selected a long-term cleanup plan for the Superfund site, with the concurrence of the State, to excavate and dispose of lead- and arsenic-contaminated soils and replace those contaminated soils with clean soil.

In May 2015, EPA began receiving preliminary sampling results showing high lead levels. However, those results could not go through the required quality control procedures for data validation until sampling was completed in December 2015. The data validation was completed in April 2016 and shared with the City in May 2016.

In July 2016, the City submitted an application to HUD for permanent relocation of residents from the WCHC in Zone 1 of the Site and for demolition of the buildings. HUD has decided to permanently relocate residents from the WCHC, but the disposition of the buildings in the long term is unknown.

EPA's recent remedial work in the three zones of the project is as follows:

- (Zone 1) The interiors of all apartments have been cleaned. Soil cleanup is on hold until questions about future land use are answered.
- (Zone 2) In November **2016**, EPA completed cleanup of 17 residential yards. Since **August 2016**, EPA has been collecting samples of residential yards. In **early 2017**, EPA will be able to determine the number of homes requiring soil cleanup after sampling and analysis has been completed.
- (Zone 3) In **December 2016**, EPA completed cleanup of 38 residential yards with elevated lead and/or arsenic levels. EPA anticipates that it will clean more than 260 homes.

In conjunction with the soil cleanup in Zones 2 and 3, EPA conducted a drinking water pilot study to determine whether the soil excavation was disturbing the scale on water service lines and causing any problems with lead in drinking water. EPA will make a determination once all of the water monitoring results are validated. However, wholly aside from the issue of whether soil excavation activities can increase lead levels in drinking water, the pilot study did detect low levels of orthophosphate (which reduces lead levels in drinking water) in the City's drinking water system as well as elevated levels of lead drinking water in some of the homes tested. This issue was brought to the State and the City's attention, and the City has since increased the level of orthophosphate in the City's drinking water system.

In **Fall 2016**, the Agency for Toxic Substances and Disease Registry (ATSDR) was criticized for its public health study the ATSDR study was published on January 27, 2011. The study concluded that, while more environmental data was needed, "declining blood lead levels in small children appear to confirm that they are no longer exposed to lead from any source," and "breathing the air, drinking tap water or playing in soil in neighborhoods near the USS Lead Site is not expected to harm people's health." ATSDR plans to finalize a new study in **2017**.

EPA has been coordinating closely with HUD, ATSDR, the Indiana State Department of Health, and the City of East Chicago throughout its response efforts and is committed to maintaining strong communication and coordination.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☐ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☒ Local Governments      ☒ Other: Resident Groups

Stakeholders may express concerns associated with receiving rapid updates on progress and new information. Media interest has been very high, as it involves not only the cleanup of the Site and related health issues, but HUD's decision to permanently relocate residents from the WCHC. The mayor has also been vocal with his concerns regarding the USS Lead Site and there has been a great deal of elected official interest.

#### MOVING FORWARD:

- Because HUD is relocating the WCHC residents and the disposition of the WCHC buildings is unclear, EPA will have to determine: (1) whether the appropriate remedy for Zone 1 involves cleanup to residential or

industrial/commercial standards, whether that remedy will include demolition of any of the buildings at the Site, and to what depth soil cleanup should be completed; and (2) the approach to ongoing cleanup in Zone 2.

- An EPA Consent Decree with the Potentially Responsible Parties (PRPs) for Zones 1 and 3 is in place. By **late spring 2017** or later, EPA will be determining its enforcement approach for Zone 2.
- Soil cleanup work in Zones 2 and 3 will restart in **spring 2017** or later.

LEAD OFFICE/REGION: REGION 5

OTHER KEY OFFICES: OLEM, OPA

# E-ENTERPRISE FOR THE ENVIRONMENT

## ISSUE SUMMARY:

[E-Enterprise for the Environment](#) (E-Enterprise) is a new model for collaborative leadership among environmental co-regulators and was initiated in 2013. Working together, environmental leaders at EPA, the states and tribes, are utilizing the E-Enterprise model to simplify, streamline and modernize the implementation of our environmental programs. The goal of the program is to ensure shared ownership and wide adoption of the results. In 2015 and 2016, the agency met the goal of reducing over 2 million hours of burden for regulated industry, laboratories, and state agencies, with 1 million additional hours of burden reduction anticipated in 2017.

## UPCOMING MILESTONES:

- **April 5, 2017-** The next in-person biannual meeting of the governing, chartered [E-Enterprise Leadership Council](#) (EELC) is on April 5, 2017, in Washington, D.C. and will be the first meeting for tribal members, who are new members to the EELC. The EELC also conducts regular teleconferences. The Deputy Administrator (or a political Acting Deputy) has co-chaired all EELC meetings **(b) (5)**. E-Enterprise is developing plans for an exposition of E-Enterprise projects in conjunction with the April 5, 2017 EELC meeting, to illustrate some of its specific, concrete accomplishments and indicate its future potential.

## BACKGROUND:

- E-Enterprise was initiated because EPA and our partners saw process improvement as an opportunity to boost the efficiency and effectiveness in delivering services to protect human health and the environment, after more than four decades of implementing federal environmental programs under statutes that used different approaches and funding mechanisms.
- The original charter to establish the EELC was signed in September 2013 by Administrator McCarthy and the Environmental Council of States' President Teresa Marks and was revised in September 2016 to formalize and reorganize E-Enterprise governance bodies, and provide for full and equal tribal participation in the EELC.
- E-Enterprise is managed through joint governance collective conversation, negotiation and direction-setting in which the states, territories, tribes, and U.S. EPA work and decide together. This joint governance model is driving transformative reforms across the national enterprise of environmental protection.
  - EPA's Deputy Administrator and a State Commissioner co-chair the EELC.
- E-Enterprise has a project portfolio of [over 30 projects](#) and has realized some key initial modernization accomplishments, and is positively transforming the EPA-state working relationships. The project portfolio started through joint EELC selection in May 2014 included 5 projects:
  - **Combined Air Emissions Reporting** - to streamline multiple emissions reporting processes and reduce the cost to industry and government for providing and managing important environmental data;
  - **Interoperable Watershed Monitoring** - to consolidate water quality data from diverse sources into an accessible data platform, supporting integrated water resource management and citizen science;

- **Smart Tools for Inspectors** - to streamline environmental inspection processes and develop software solutions that enabling inspectors to efficiently prepare for, conduct, and report on field inspections;
  - **Pesticide Label Matching** - to modernize the decades-old work processes for manually conducting pesticide product label inspections with “smart labels” and a mobile application for inspectors;
  - **Local Government Portal** – to provide powerful, easy-to-use tools enabling local governments to make better decisions, save staff time and money, and provide higher levels of service to their communities.
- The EELC further endorsed the development of reusable technology solutions - “Shared Services”- that are intended to maximize efficiency and avoid duplication of effort by EPA, states, and tribes. This is headlined by [the E-Enterprise Portal](#), launched in October 2015, which is an innovative and user-friendly web platform that will improve customer service for the public, and modernize how the regulated community and environmental co-regulators conduct environmental transactions.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☐ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Government      ☐ Other: \_\_\_\_\_

- States and, more recently, tribes have invested significant priority, effort, and resources in E-Enterprise.
- [ECOS’ 2014 resolution](#) affirmed its commitment to E-Enterprise, and its October 1, 2016 transition paper, “[Priority Areas for a Time of Political Transition 2016–2017](#)”, reinforced the need for continued federal and state commitment and resources to realize the full benefits of the E-Enterprise program.
- OMB has been supportive of E-Enterprise and engages frequently about E-Enterprise cost/benefit calculations, key project milestones, and burden reduction progress, which are tracked as part of the Agency Priority Goals.
- Leading national groups of business associations, municipal associations and local groups, nongovernmental organizations, and state program associations will be invited to the expo that will take place in conjunction with the April EELC meeting.

#### MOVING FORWARD:

The April 5, 2017 EELC meeting described above will occur amid (b) (5) and the joint governance approach that is transforming the EPA’s working relationship with these partners. (b) (5)

The planned expo will serve as an opportunity to conduct outreach with additional key stakeholder groups and showcase E-Enterprise success stories.

(b) (5)

LEAD OFFICE/REGION: OCFO

OTHER KEY OFFICES/REGIONS: AO, OW, OAR, OLEM, OECA, OCSPP, OEI, R1, R7

# EJ2020 ACTION AGENDA

## (ENVIRONMENTAL JUSTICE)

### ISSUE SUMMARY:

For over two decades EPA has worked to protect human health and the environment in low income and minority communities overburdened by environmental pollution through integrating environmental justice into all EPA programs, policies and activities. This work has reached new levels as environmental justice is now recognized as a shared responsibility throughout the Agency. EPA's [EJ 2020 Action Agenda](#) represents the next generation of environmental justice at EPA and advances environmental justice in the coming years through our actions at EPA, with state and local government partners, and throughout the federal government.

### UPCOMING MILESTONES:

- **Spring 2017-** In the spring of 2017 EPA will convene its first Environmental Justice Interagency Working Group (EJ IWG) Principals Meeting with the new Administration. The EPA Administrator serves as the Chair of the EJ IWG, which is comprised of 17 Federal agencies.

### BACKGROUND:

EPA has made great strides in the area of environmental justice. This progress was recently catalyzed by Plan EJ 2014, EPA's previous four-year strategic plan for incorporating environmental justice in EPA's work and throughout federal agencies. Plan EJ 2014 built the infrastructure for progress on EJ, including the issuance of an EJ Legal Tools document, guidance on considering environmental justice during the development of rules, plans for enhanced outreach for priority EPA-issued permits, and the development of EJSCREEN, a screening and mapping tool for environmental justice. In addition, EJ work also supports broader cross-Agency efforts to address the needs of communities and to seek opportunities to catalyze revitalization of overburdened communities through federal partnerships.

In October of 2016, EPA released [EJ 2020](#), the Agency's comprehensive strategy for action over the next five years that will take EPA's environmental justice to the next level. EJ 2020 builds on the foundation laid by Plan EJ 2014, as well as decades of significant environmental justice practice within communities and among our governmental partners and stakeholders. EJ 2020 charts a path forward for achieving better environmental and health outcomes and reducing disparities in the nation's most overburdened communities and will help us cultivate strong partnerships to improve on-the-ground results. Achieving this vision will help to make our vulnerable, environmentally burdened, and economically disadvantaged communities healthier, cleaner and more sustainable places in which to live, work, play and learn. The EPA will achieve EJ 2020's vision through three goals, which include: (1) Deepening environmental justice practices within EPA programs to improve the health and environment of overburdened communities; (2) Working with partners to expand positive impacts within overburdened communities; and (3) Demonstrating progress on significant national environmental justice challenges.



EPA has worked directly with other federal partners in the EJ IWG to create EJ strategies and progress reports for each federal agency, as well as drafted critical materials such as the *Promising Practices for EJ Methodologies in NEPA Reviews* document, which was developed with the support of over 100 federal agency staff, and creates clear guidelines to include affected overburdened communities in federal National Environmental Policy Act (NEPA) reviews. In 2016, the EJ IWG released its 2016-18 Strategic Plan, which has focused efforts on Native Americans/Indigenous Peoples, rural communities, impacts from climate change, impacts from commercial transportation (Goods Movement) and the National Environmental Policy Act.

## KEY EXTERNAL STAKEHOLDERS:

- ☐ Congress
 ☒ Industry
 ☒ States
 ☒ Tribes
 ☐ Media
 ☒ Other Federal Agency  
☒ NGO
 ☒ Local Governments
 ☐ Other (name of stakeholder): Communities

Communities and NGOs will want to see definitive progress on and affirmation of EJ 2020.

## MOVING FORWARD:

[illegible]

LEAD OFFICE/REGION: OECA, REGION 7

## OTHER KEY OFFICES/REGIONS:



# EMERGING DRINKING WATER CONTAMINANTS

## ISSUE SUMMARY:

We are finding emerging contaminants in our water from industrial chemicals, pharmaceuticals, and other sources that can pose risks to public health. Multiple EPA offices are working with state, tribal and local governments, utilities and other stakeholders to prioritize and address the challenges posed by emerging and unregulated contaminants such as [algal toxins](#) and [perfluorinated chemicals](#).

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- [REDACTED]

## BACKGROUND:

Recent events illustrate challenges associated with unregulated drinking water contaminants:

- A leak from a coal washing facility upstream of Charleston, WV, contaminated the city's drinking water source with 4-Methylcyclohexanemethanol, resulting in a "do-not-use" order and an estimated total economic cost of \$70 million (January 2014).
- A harmful algal bloom contaminated the drinking water supply of Toledo, Ohio, with [cyanotoxins](#) that led to a weekend-long "do-not-drink" order (August 2014). Subsequent major blooms in the Ohio River in 2015 and Des Moines, Iowa, and Florida in 2016 forced utilities to take active management steps to prevent prolonged cyanotoxin contamination of treated drinking water.
- Communities across the country have been evaluating how to protect public health after learning their drinking water was contaminated with perfluorinated chemicals (2016).

In its 2001 report, "[Classifying Drinking Water Contaminants for Regulatory Consideration](#)," the National Research Council estimated that the total number of chemical, microbial, and other types of potential drinking water contaminants is likely on the order of tens of thousands. Under the new [Chemical Safety for the 21st Century Act](#), EPA must develop a regulation requiring Industry to report on all compounds that have been manufactured in the last 10-years and will designate compounds on the inventory as active or inactive.

EPA has established [National Primary Drinking Water Regulations](#) for over 90 compounds. These regulations address many common contaminants facing the nation's 152,000 drinking water systems, and have been instrumental in the dramatic improvements in drinking water quality across the U.S.

EPA's [Contaminant Candidate List](#) (CCL) is used to evaluate contaminants for potential regulation. The fourth CCL, includes 97 chemicals/groups and 12 microbial contaminants that represent the highest priorities. EPA must make determinations on whether to regulate at least five contaminants on the fourth [CCL](#) by January 2021. To regulate a contaminant, EPA must follow Safe Drinking Water Act requirements and determine that:

- The contaminant may have adverse effects on human health;
- The contaminant is known to occur or there is a substantial likelihood the contaminant will occur in public water systems with a frequency and at levels of public health concern; and
- In the sole judgement of the Administrator, regulation of such contaminant presents a meaningful opportunity for public health risk reduction for persons served by public water systems.

EPA addresses contaminants in groundwater at sites that are subject to cleanup when reliable toxicity information is available. (b) (5)

#### KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress    ☒ Industry    ☒ States    ☐ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☐ Local Governments    ☐ Other: Water utilities

#### MOVING FORWARD:

- (b) (5)
- 
- 
- 
- 

LEAD OFFICE/REGION: OW

OTHER KEY OFFICES/REGIONS: ORD, OLEM

In summer 2016, the Agency leadership team identified five areas, including information technology (IT), as the top enterprise risks impacting the Agency's ability to achieve its mission. Demands for information technology tools and services are increasing due to the growth in the volume of information, the need for a higher level of service, and the need to address increasingly complex human health and environmental issues through data analysis. EPA is working to adopt more cohesive, modern methods of providing employees and external partners with the tools and services they need to support the Agency's mission. (b) (5)

### Major IT Risk Areas

[illegible]

## **Recent Actions Taken to Mitigate Risks**

### **1) Customer Focus:**

- a. *IT Customer Service Group Formed.* In July 2016, EPA created the Office of Customer Advocacy, Policy, and Portfolio Management. This office provides customer-facing support functions for EPA's IT needs, and is working with customer experience groups in other offices to improve the quality of IT communications, training, and services. It is launching a pilot to demonstrate the benefits of a dedicated liaison from a Region or Program to EPA's Office of Environmental Information.

### **2) Systems and Tools to Support the Agency Mission:**

- a. *Tools that meet Stakeholder needs.* In July, 2016 EPA created the Office of Digital Services and Technical Architecture. This office is providing EPA programs with consulting services in [Agile](#) and user-centered development to expedite delivery, reduce deployment risks and development costs, and ensure that needs of the end-user are integrated into the project goals. EPA has taken a holistic approach to promoting Agile methodologies, including training, consulting services, formation of an EPA Developer's Guild, implementation of an Innovation Fellowship program, and development of Agile-focused procurement vehicles.
- b. *Agency-wide management of enterprise IT modernization.*
  - i. *Federal Information Technology Acquisition Reform Act (FITARA) Implementation* [FITARA](#), which passed into law as part of the National Defense Authorization Act of 2015, provided federal CIOs with specific authorities over IT budgets, acquisitions, and management. As part of EPA's FITARA implementation, the EPA CIO has held IT acquisition and portfolio reviews with Programs and Regions. These have yielded opportunities for leveraging shared services, moving to open source standards, avoiding purchase of redundant tools, and promoting use of Agile development practices.
  - ii. *Cloud Strategy.* EPA has worked with several cloud vendors and technologies to assess opportunities for achieving cost savings and performance efficiencies. We have also established an assessment process to determine whether specific applications are appropriate to migrate to cloud environments. Finally, EPA is developing a comprehensive strategy for provisioning cloud services and developing cloud applications.
  - iii. *Development of IT/IM Strategic Plan.* EPA is developing an Information Technology/Information Management Strategic Plan to provide a common vision for IT/IM direction, a common understanding of priorities, and a shared basis for planning future IT/IM investments.

## **MOVING FORWARD**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

LEAD OFFICE/REGION: OEI

CHAMPIONS: OCFO, OCSP, REGION 5

# ENTERPRISE RISK MANAGEMENT OVERVIEW

## ISSUE SUMMARY:

The new government-wide requirement for enterprise risk management (ERM) was instituted with the Office of Management and Budget (OMB) changes to [Circular A-123](#) on July 16, 2016. In spring 2016, the Agency leadership team identified five areas as the top enterprise risks impacting the Agency's ability to achieve its mission. These top enterprise risks will be used to inform the development of EPA's Initial Risk Profile, which is due to OMB late next spring, as well as development of the [FY 2018-2022 EPA Strategic Plan](#) and the FY 2019 Budget.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

## BACKGROUND:

- OMB [Circular A-11](#) and [Circular A-123](#) require Federal agencies to implement enterprise risk management by integrating it into strategic planning, strategic reviews, internal control reviews, internal control reviews, and annual planning and budgeting.
- EPA redesigned strategic reviews for FY 2016 to focus on enterprise risks/actions; to include mission-support and research programs in the review and to align the effort with management integrity internal control reviews.
- Analysis of 69 risks identified in FY 2016 strategic reviews showed 10 enterprise risk areas in three broad categories: mission support, external, and programmatic.
- Senior leaders identified the top five enterprise risks impacting the Agency's ability to achieve its mission.:
  - **Human resources** —threats to timely hiring, bringing talent on board, and sustaining the right skill mix to advance EPA's mission.
  - **Information technology** —Threats to timely and effective development of IT systems, tools, and infrastructure to support the agency's work.
  - **Information management** —Threats to the effective collection, management, and use of data to achieve agency goals.
  - **Acquisition/contracting** —Threats to timely issuance of contracts to support mission work.
  - **State/tribal implementation and EPA oversight**—Threats related to state and tribal capacity and the manner in which states and tribes implement federal programs.
- Co-champion teams, comprised of process owners, lead regions, other interested program/regional offices, developed enterprise risk action plans to make near- and long-term progress and are providing updates at

Executive Management Council<sup>1</sup> (EMC) Meetings and periodic Deputy Assistant Administrator (DAA)/Deputy Regional Administrator (DRA) meetings.

- The agency's five enterprise risks and associated actions will support the development of EPA's Initial Risk Profile.
- FY 2016 efforts to refocus strategic reviews, engage EPA senior leadership in identifying enterprise risks, and develop actions to address them are initial steps in developing EPA's enterprise risk management program.

KEY EXTERNAL STAKEHOLDERS:

☐ Congress      ☐ Industry      ☒ States      ☒ Tribes      ☐ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Government      ☐ Other (name of stakeholder)\_\_\_\_\_

**Key Concerns:** States and Tribes have consistently raised concerns about their capacity and resources to carry out the implementation of federal programs (specifically for the State/Tribal implementation and oversight risk.)

MOVING FORWARD:

(b) (5)

[REDACTED]

LEAD OFFICE/REGION: OCFO

OTHER KEY OFFICES/REGIONS: ENTERPRISE RISK CO-CHAMPIONS (OEI, OARM, OCIR/OITA). ALL NPM OFFICES AND REGIONS

<sup>1</sup> The EMC is an EPA Council for career deputies and chaired by the Deputy Administrator

# Enterprise Risk: States and Tribal Program Implementation and Oversight

## ISSUE SUMMARY:

In summer 2016, the Agency leadership team identified five areas, including State and Tribal program oversight, as the top enterprise risks impacting the Agency's ability to achieve its mission. Since 2008, GAO has identified EPA's oversight of state-delegated programs (including permitting, enforcement, drinking water, and others) as an agency challenge. This issue is particularly sensitive for states. Incidents like Flint, MI serve as reminders of the need for a robust oversight mechanism to ensure the protection of public health. States struggle with declining resources, political pressure and other factors that hinder them from meeting their responsibilities, yet are wary of increased oversight of their programs, while EPA's own resources limit its ability to provide sufficient oversight and leads to questions about the agency's effectiveness.

## BACKGROUND:

States and federally recognized Indian tribes are instrumental to achieving EPA's mission and the goals of many agency programs (e.g., Safe Drinking Water, Clean Air, Brownfields, and Superfund). As such, effective oversight and sound, collaborative relationships with our state and tribal partners are essential. In this environment of constrained resources, the ability to leverage each other's capabilities assists in more efficiently addressing environmental challenges facing the country. Understanding the impact that state and tribal program implementation, EPA oversight, and EPA direct program implementation in Indian country have on advancing environmental programs, as well as GAO studies related to these matters, EPA senior leaders identified these three areas as an enterprise risk facing the agency. The recently identified enterprise risk recognizes:

- EPA has insufficient resources to fully conduct state and tribal oversight, state and tribal capacity building, and direct implementation in Indian country<sup>1</sup>. *Example: states and tribes with program implementation responsibility and EPA when it maintains program management authority don't have capacity to oversee drinking water rule implementation challenges at the local level.*
- States and tribes with EPA-approved programs are increasingly challenged by resource constraints, the growing complexity of delegated programs, and political pressures. *Example: some state legislatures have imposed restrictions that have reduced or eliminated State implementation options.*
- EPA direct implementation in Indian country presents challenges because of the unique status of tribal nations coupled with the fact that many tribes face economic and technical capacity problems that make it difficult to achieve and sustain compliance.

### Recent Mitigation Actions

- EPA worked with states (through ECOS and the media associations) to develop and implement the State Review Framework (SRF), which provides a nationally consistent approach to assessing state program performance and jointly addressing performance issues. Under SRF, EPA regions review state enforcement programs once every

<sup>1</sup> Note: EPA is responsible for directly implementing the vast majority of federal environmental programs in Indian country; an area comprising approximately 56 million acres divided among 300 tribes.



five years. State enforcement program performance data, SRF reports, and program improvement progress are made publicly available on the EPA Enforcement and Compliance History Online (ECHO) website.

- OAR, OW, and OLEM drafted “Common Core Permitting Program Principles,” based on the assessment of three key agency permitting programs: the Clean Air Act title V program, the Clean Water Act’s National Pollutant Discharge Elimination System program, and the Resource Conservation and Recovery Act subtitle C program. EPA shared these draft Principles with states (through ECOS), which resulted in a set of “Principles and Best Practices for Oversight of State Permitting Programs” that has been circulated to program managers across the agency and shared with states via ECOS.<sup>2</sup>
- While recognizing this progress, OIG’s most recent report, [EPA’s Fiscal Year 2016 Management Challenges](#), found the absence of robust oversight of entities authorized to implement environmental programs in the states, and continues to monitor corrective actions.
- States recognize the value of shared accountability and appreciated the collaborative approach to developing the “Principles and Best Practices” document, but have the following concerns:
  - The ten EPA Regions vary in their levels of oversight of state programs.
  - Declining resources juxtaposed with federal requirements make it difficult for states to achieve their missions and goals. To accommodate for resource constraints and unexpected resource-intensive natural disasters/emergencies, states advocate for flexibility in the implementation of their programs, and the streamlining of existing reporting requirements.
  - In light of potential new federal requirements, states do not want additional requirements directing them how to do their work, or the burden associated with annual oversight activities.
  - Improved communication between the Regions and the states would help with planning, and could serve to diffuse contentious situations between EPA and the states, as well as between the state environmental agency and communities within that state.

#### MOVING FORWARD:

EPA has strengthened its partnership with states and is well-positioned to engage with them on difficult issues, forming a firm foundation for joint governance. EPA committed to continue strengthening its collaborative relationship with states and tribes through milestones set forth in the Agency’s FY 2017 Action Plan for A New Era of State, Local, Tribal and International Partnerships. Other opportunities for strengthening this partnership include:

- Working together through the E-Enterprise Leadership Council.
- Continued support of multi-year planning and joint priority setting as part of EPA’s 2-year NPM Guidance process.
- Expanded use of the [National Environmental Performance Partnership System](#) and the [Field Guide to Flexibility and Results](#) to take advantage of flexibilities.
- Ongoing consultation and communication, and an evaluation of direct implementation programs in Indian country.

LEAD OFFICE/REGION: OCIR, OITA

OTHER KEY OFFICES/REGIONS: OCFO, OW, OECA, R8, R9, R10

<sup>2</sup> Transmitted via August 30, 2016 letter from Acting Deputy Administrator Stan Meiburg to Ms. Martha Rudolph, President of the Environmental Council of the States



# ENVIRONMENTAL ECONOMICS

## ISSUE SUMMARY:

Every Administration since 1981 has required benefit-cost and other economic analysis as part of its rulemaking procedures. EPA's expertise in environmental economics supports such economic analysis in its regulatory and other programs, and has allowed EPA to value the environmental and public health benefits of its regulations for benefit categories such as reductions in premature deaths and reduced impacts of climate change. Other important benefit categories, however, such as those related to reduced toxic chemicals (e.g. to support TSCA 21 implementation) or improvements in water quality have remained largely unquantified in EPA's analysis, and would require further research to support their inclusion.

(b) (5)

## BACKGROUND:

Benefit-cost and other economic analyses provide key information for decision makers and serve as a report to the public on the expected environmental and health benefits that will result from investing in environmental improvements. EPA conducts such analyses for economically significant regulatory proposals as required by Executive Order. These analyses are made available for public comment, along with other parts of the regulatory proposal. For example, the benefit-cost analysis for the *Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, Final rule* showed benefits in the range of \$451 to \$566 million, while costs were approximately \$480 million. Likewise, the benefit-cost analysis for the *Mercury and Air Toxics Standards* estimated the benefits in reduced human health risks alone were \$37 to \$90 billion per year, while the costs were \$9.6 billion per year.

EPA's analysis currently supports quantifying the benefits from reductions in criteria air pollutants and greenhouse gases. (b) (5)

KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☐ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☒ Other (name of stakeholder) Academia

- Congress, industry and states are frequently interested in EPA's economics work.
- Other federal agencies are engaged in the social cost of greenhouse gases work. And, DOT, FDA, and CPSC, as well as industry, states, and media will be interested in EPA's mortality risk valuation work.

MOVING FORWARD:

(b) (5)

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LEAD OFFICE/REGION: OP

OTHER KEY OFFICES/REGIONS: OAR, OW, OCSPP, OLEM, ORD



# **EPA Budget**

## **Upcoming Decisions, Milestones & Processes**

**January 2017**



# Introduction



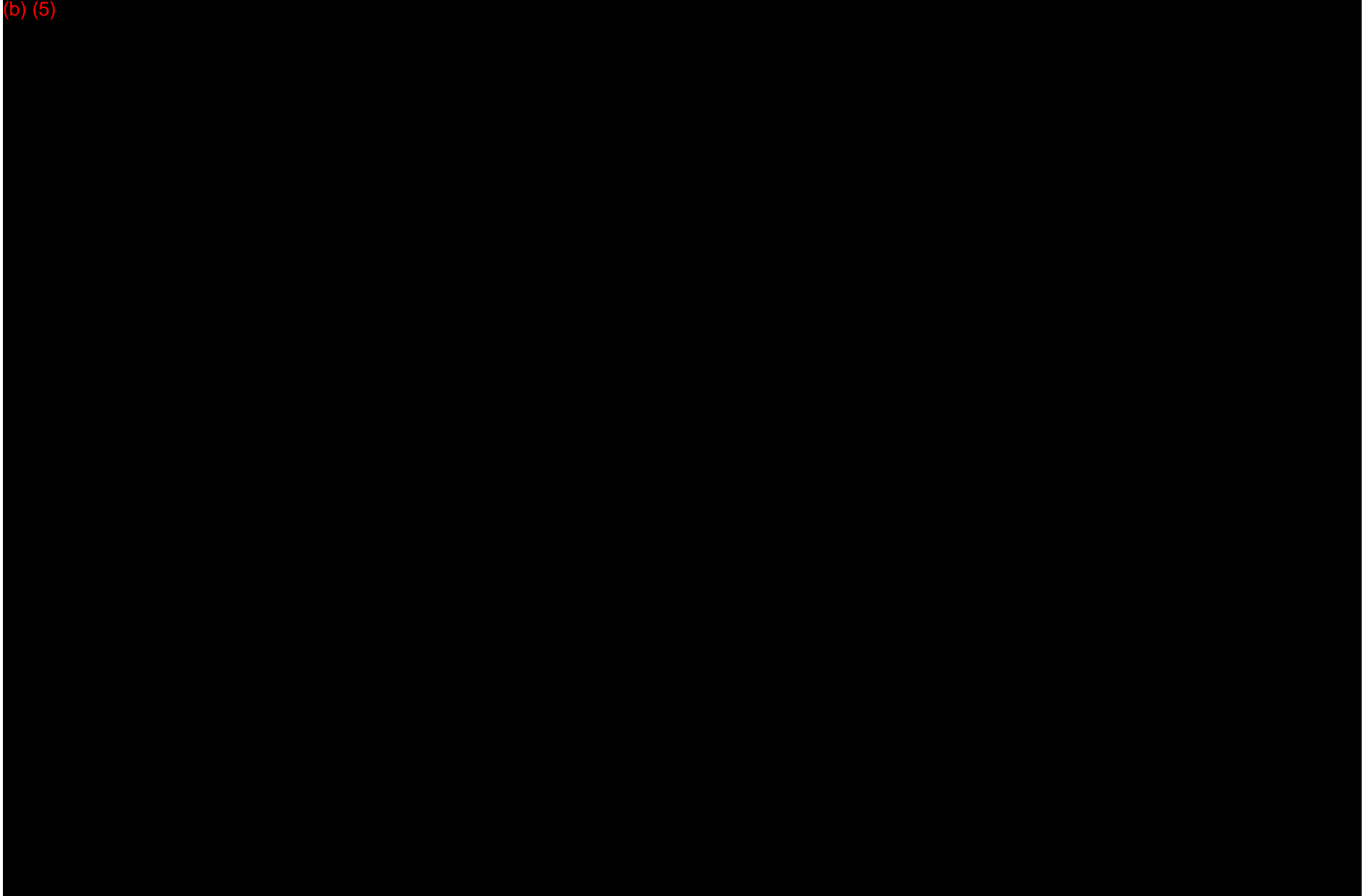
- The following slides are intended to aid the landing and transition teams in understanding EPA's upcoming budget-related decisions, timelines and processes, including:
  - Upcoming Milestones
  - Budget Formulation Steps and Timelines
  - Operating Plan – Context and Decision Points
  - Continuing Resolution (CR)
  - Appendix – EPA's:
    - Appropriations (Funds)
    - Budget Structure,
    - Designated Officials with Budget Responsibilities, and
    - Management of Federal Spending Rules –
      - Support for Managing Budget Execution Requirements



# Major Budget Decisions by Fiscal Year (FY)



(b) (5)





# Budget Schedule Formulation & Execution



**Federal Financial Management is generally divided into two parts – Budget Formulation and Budget Execution:**

- **Formulation** – Develop future budgets.
  - Thus, right now formulating budgets for FY 2018, FY 2019 and beyond
- **Execution** – Make sure organizations correctly use monies that were appropriated and allocated
  - Develop Operating Plans and oversee spending of funds
  - Today agency is executing the FY 2017 budget and managing monies from current and prior fiscal years.

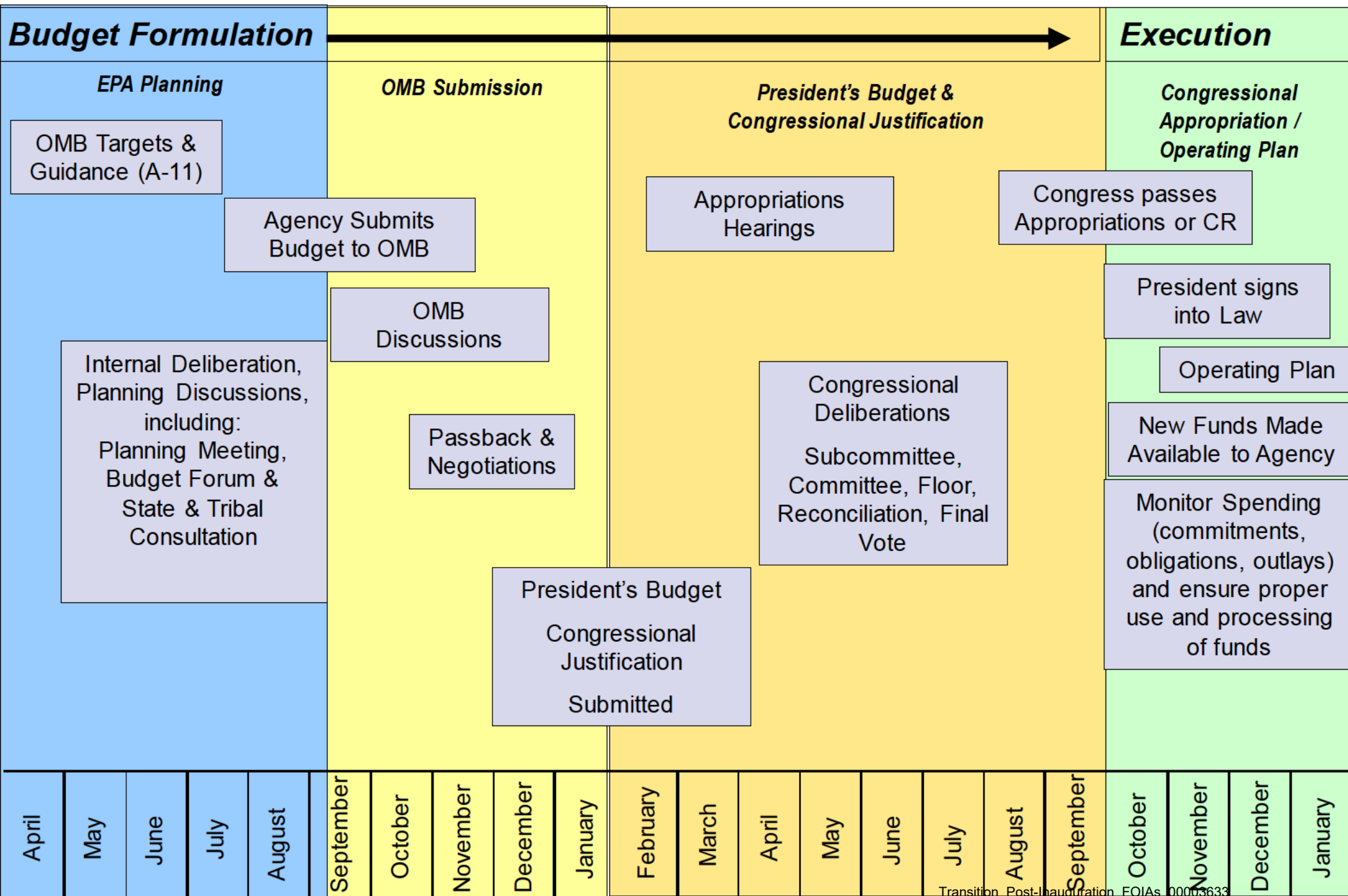


# Budget Formulation Steps & Schedule



- Normally, the Federal government begins formulating (planning for) budgets about a year and a half before the start of the relevant Fiscal Year.
- The major steps are:
  - Internal Deliberation – The EPA holds internal discussions to develop budget proposals (Normally considering an OMB “target” for EPA’s total budget funding level)
  - OMB Submission – The EPA submits a detailed proposed budget to OMB
    - Followed by meetings and discussions, and sometimes formal hearings
  - Passback – OMB sends proposed budget back to the EPA
    - Negotiations begin between agency and OMB
  - President’s Budget/Congressional Justification – The EPA submits detailed budget to Congress
    - Normally agency meets with the press and stakeholders and briefs appropriators
  - Hearings and Congressional Deliberations – Congress reviews the EPA’s budget proposals, holds hearings, etc.
  - Operating Plan – Agency develops a detailed spending plan after President signs appropriations bills
- **Please Note:**
  - *Because budget formulation takes more than a year, some of these major steps for different fiscal years happen at the same time.*

# EPA Budget Formulation Schedule (Normal Year)







# Status - FY 2018 Budget Formulation



Each new Administration develops different decision processes and schedules to formulate its first budget proposals

## Steps taken prior to election

- The EPA developed resource-related issues for potential FY 2018 consideration
- Agency submitted Current Services Budget & the 16 White Papers to OMB in September, which were intended to serve as a baseline for FY 2018 decisions under the new Administration

## Post- Election *(early November through inauguration)*

- Transition Teams arrive and may begin looking at funding options and priorities

(b) (5)

(b) (5)

# Formulation Decisions

Agencies have flexibility within the OMB proposed funding level (OMB target) to consider:



- **Big Picture**

- Are there programs that have significant resource gaps?
- What FTE (staffing) levels will be included in the request?

- **Administration Initiatives**

- Are there government-wide initiatives that the EPA should participate in?

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- **But – EPA's has a complicated budget structure and choices**

- *EPA's Budget justification is over 1,000 pages and provides detail on each appropriation and program project*
- *The EPA currently is controlled through 10 appropriations, 116 program projects organized into 28 program areas.*
- *Congress limits movement for each program area to \$1M or 10% per year through reprogramming limits. Also EPA cannot transfer funds between appropriations.*

# 2017 Operating Plan



## When the EPA receives an appropriation, the EPA must develop an operating plan

- The EPA must submit a detailed Operating Plan to OMB within about 20 days and to Congressional appropriations committees within 30 calendar days of the President signing the bill.
  - For FY 2017, timing is uncertain.
- To develop an Operating Plan, the EPA reviews congressional direction and updates costs:
  - Applies any rescissions and reviews Congressional direction,
  - Updates cost calculations (e.g.. payroll, support costs, etc.), and
  - Considers agency redirections to support policy choices from the President's Budget within available flexibility
- Administrator and Deputy must carefully weigh funding choices and how to comply with Congressional direction
- AAs must address specific mandates for their programs, often without additional funding
- Depending on language in appropriations, Congress may require approval steps for operating plan

# 2017 Operating Plan Decisions



Decisions points needed to develop an Operating Plan for FY 2017 include:

- (b)(5)
  - [Redacted]
  - [Redacted]
  - [Redacted]
  - [Redacted]
- [Redacted]
  - [Redacted]
  - [Redacted]
  - [Redacted]
- [Redacted]
  - [Redacted]
  - [Redacted]

# 2017 Operating Plan Decision Process Options



(b) (5)



# FY 2017

## Continuing Resolution (CR)



Congress frequently passes temporary appropriations bills to fund agency operations for a period of time until Congress passes a full-year appropriations bill

- The CR for FY 2017 is through December 9, 2016, but may be extended
- The CR bills contain language on the rate of operations (or spending) and amount of funding available under the CR
- Funding levels are generally derived from the lowest of:
  - House Appropriations Bill,
  - Senate Appropriations Bill, or
  - Previous Fiscal Year
- No new programs, program eliminations, or reorganizations can be implemented during a CR
- The agency must continue to operate as it did in the previous fiscal year
- If no CR is passed, the government shuts down
  - However, some EPA employees deemed “essential” may have to work full or part-time and some employees whose work is funded by fees or other non-appropriated sources of funding may also continue to work



# Appendix

For reference, the appendix contain reference sheets on the EPA's:

- Appropriations,
- Budget Structure,
- Designated Officials at EPA with Budget / Finance Authorities,
- Federal Spending Requirements
- Managing Federal Spending Requirements, and
  - Support for Managing Federal Requirements



# EPA Appropriations



EPA's major funding appropriations are, in order of dollar value:

- **State and Tribal Assistance Grants (STAG)** – Funds grants or cooperative agreements for states and tribes to solve environmental problems. In FY 2017 PB, STAG includes: \$2 Billion for State Revolving Funds, \$1.158 Billion for Categorical Grants, and \$122 million for other items
- **Environmental Programs & Management (EPM)** – Funds a broad range of pollution control efforts for all programs except Superfund, LUST, OIG, Oil, including payroll, travel, support contracts and some grants
- **Hazardous Substance Response Trust Fund (Superfund, SF)** – Funds legislative mandates of CERCLA & related emergency response to hazardous waste spills, long term planning & site cleanup, & enforcement actions requiring responsible parties to clean up & allow the government to recover costs
- **Science & Technology (S&T)** – Primarily funds research & research related activities.
- **Leaking Underground Storage Tanks Trust Fund (LUST)** – Funds legislated mandates of the Superfund Amendments & Reauthorization Act (SARA) and corrective action for releases from leaking underground storage tanks. Implemented through cooperative agreements with states.
- **Buildings and Facilities (B&F)** – Funds repairs, improvements and new construction for EPA buildings
- **Inland Oil Spill Programs (Oil)** – Funds prevention & response to oil spills in waterways
- **Inspector General (IG)** – Funds EPA audit, evaluation & investigative functions
- **E-Manifest** – Funds E-manifest
- **WIFIA** – New Appropriation for the Water Infrastructure and Finance Innovation Act

**NOTE: EPA may NOT move funds across appropriations – SF transfer to S&T and IG only exception**







# EPA Budget Structure



**EPA's dollars and FTE are managed and tracked in detail by:**

- **Appropriation** – EPA has 9 types or “buckets” of funding.
  - EPA may not move any funding from one appropriation to another without statutory authority.
- **National Program** – All of EPA's dollars are tracked according to their national program (e.g. water, enforcement, land, pesticides or air).
- **Organization (NPM or Region)** – What organization manages the funds? Most national programs designate separate “allowance holders” within their organization.
- **Program Project** - Major components of each program. The EPA Congressional Justification describes each program/project, as well as activities, performance plans and targets, as well as proposed budget changes compared to the base fiscal year.
  - **Program Area** – A program area includes multiple program/projects that comprise and support the work of that area. For example, the Clean Air and Climate Program Area includes 4 clean air and Climate change related program/projects.
  - Programs can be funded from several appropriations and work in more than one NPM
- **Budget Object Class (BOC)** – Federal dollars must be tracked according to how they were used.
  - EPA's BOCs are 10 Personnel Compensation & Benefits (PC&B), 21 Travel, 28 Site Travel, 36 Expenses, 37 Contracts, 38 Working Capital Fund, and 41 Grants
  - Within each BOC there are more detailed 4-digit sub-object or Finance Object Class (FOCs)
- **EPA's Five Strategic Goals** – All Agency budgets are also tracked to the specific Strategic Goals outlined in the Agency's Strategic Plan.
- *In addition, the agency must also track additional detail such as IT spending using IT codes, Superfund site-specific spending using SF site and activity codes, etc.*



# Designated Officials at EPA with Budget and Finance Responsibilities

- **OCFO Leadership** including Deputy CFO, Controller, Budget Director
- **Senior Resource Officials (SROs)** are the Deputy Assistant Administrators (DAA) OR Assistant Regional Administrators (ARAs) in NPMs and Regional offices, who are responsible for resources management and guide resource planning.
- **Senior Budget Officers (SBOs)** – Each NPM has an SBO with a small team who help in budget formulation and guide budget execution.
  - Larger NPMs also tend to have smaller financial units within their major offices, e.g. OW's Clean and Drinking Water groups or RTP in North Carolina.
  - SBOs will coordinate with lead Regions on particular budget topics.
- **Assistant Regional Administrators (ARAs)** generally manage all administrative functions, including finance, in each Region.
- **Regional Comptrollers** – manage financial execution and participate in some budget execution exercises. Normally have a budget and finance lead.
- **Funds Control Officers (FCOs)** – EPA organizations designate and train officials to assure sound financial management. FCOs track, review, report and assure the proper use of funds.

*And all managers are ultimately responsible for any financial actions they take*



# Spending Federal Requirements



All program spending must comply with 3 general sets of Law and Rules

## 1) Environmental Laws (Statutes)

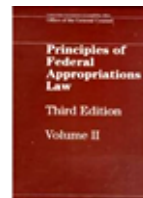
- NEPA, CAA, CWA, SWDA, RCRA, TSCA, CERCLA, FIFRA, etc.
- *Many EPA Authorizing Statutes have specific financial authorizations and requirements.*

## 2) Appropriations Statutes - Annual & Supplemental Appropriations

- Appropriations have directives and requirements in law and report language,
- *The EPA cannot move dollars between its 10 appropriations*
- *Congress limits reprogramming between EPA's 28 program areas and 116 program projects to \$1 million or 10 percent (whichever is lower )*

## 3) Government-wide Management Laws (Statutes) and Guidance / Regulations

- **Laws** - Anti-Deficiency Act (ADA) GPRA, CFO Act, FMFIA (internal controls), the Recording Statute, FFMIA, FACA, IG Act, Data Act, Miscellaneous Receipts Act (MRA), etc.
- **Guidance / Regulations** – comes from different organizations
  - Office of Management & Budget (OMB) Circulars (A-11, A-123, etc.), GAO (Green Book, Red Book, etc). OPM (HR), GSA (space, procurement, travel), DOC-NIST (cyber-security), Treasury (finance), etc.





# Spending Complex Federal Rules



Federal Government spending rules can be very different than private sector, non-profit or even state and local spending and administrative rules.

- *Seemingly minor details can cause major problems.*

Legal, administrative and financial specialists can advise on plans, contracts, grants, travel, pay and other actions to check on how to meet all Federal requirements

For example:

- 1) **Statutes** - Program Experts & General Counsel can advise on what is authorized under environmental statutes
- 2) **Appropriations** - Senior Budget Officers (SBOs) and Regional Comptrollers, General Counsel and OCFO on appropriation directives, restrictions, and report language
- 3) **Management Laws and Rules** - Funds Control Officers (FCOs), Contract Offices and Grants Officers on the administrative, financial and other laws and rules



# **EPA Budget**

## **Context & History**

**January 2017**



# Introduction



The following slides show the EPA budget in several ways, including :

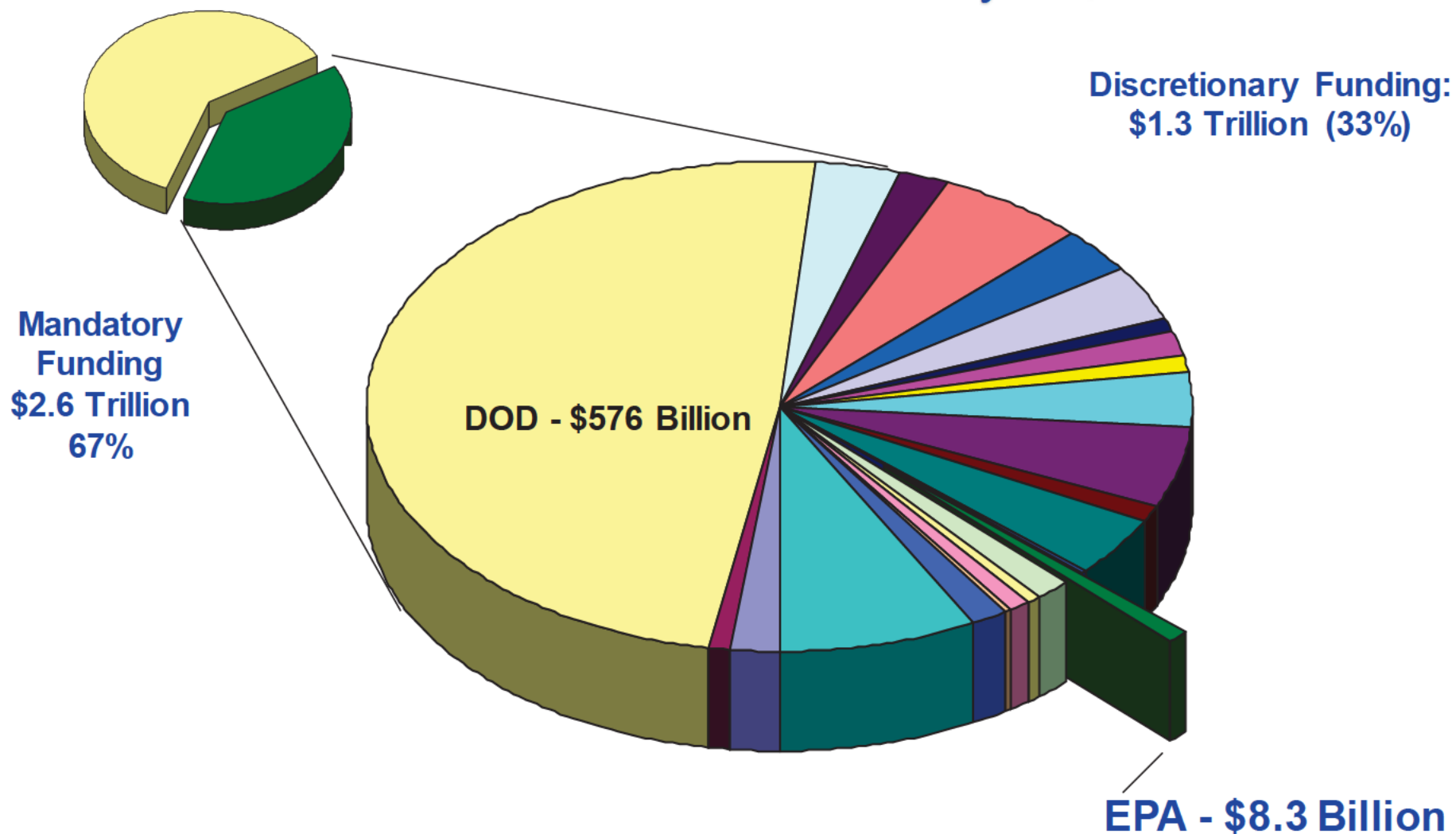
- In the context of the total Federal budget
- Historical budgets (adjusted for inflation)
- Staff (FTE) and Payroll
- By Appropriation (fund)
- By Category or Type of Funding
- By Organization
  - Dollars
  - Staffing
- By Strategic Plan Goal
- State and Tribal Funding
- By Type of Spending (Object Class)
- Historical Trends compared to other Science and Natural Resources Agencies



# EPA in Total Federal Budget



Total US Federal Estimated 2016 Outlays - \$3.9 Trillion



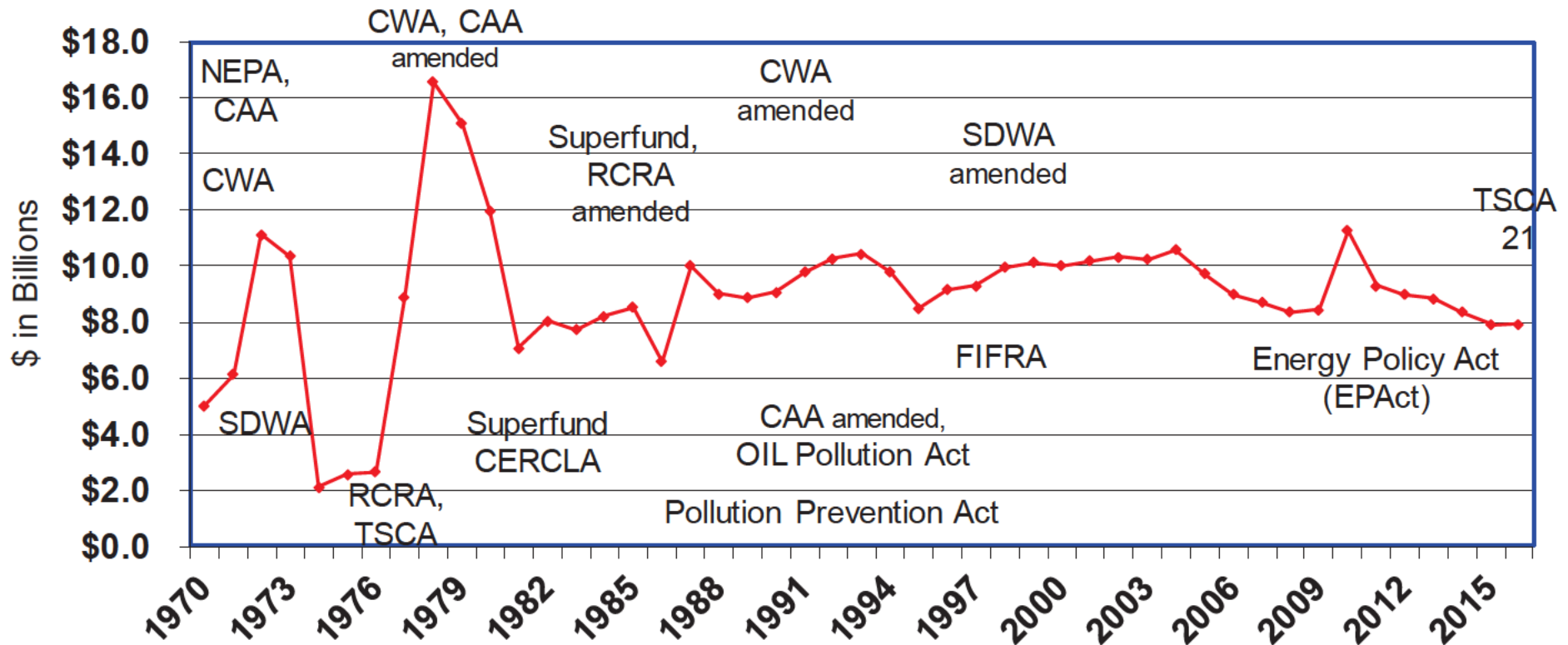
*In FY 2016, EPA's \$8.3 billion outlays were about 0.2% of total Federal outlays and 0.6% of the discretionary outlays*





# EPA Budgets & Major Legislation

Real Dollars (inflation adjusted) 1970 to 2016



*Adjusted for inflation, the EPA's annual budgets have declined in value since the 1990s.*

• Chart does not include 2009 \$7 billion Recovery Act and 2013 \$600 million Hurricane Sandy funding.

**Major legislation shown on this slide are laws which significantly influenced the EPA's workload and resource requirements (Statute definitions on following slide)**

**Sources** – OMB Historical Budget Charts from [www.eob.omb.gov](http://www.eob.omb.gov)

Transition\_Post-Inauguration\_FOIA\_s\_00003649





# EPA Major Legislation

## Dates Passed and Amended

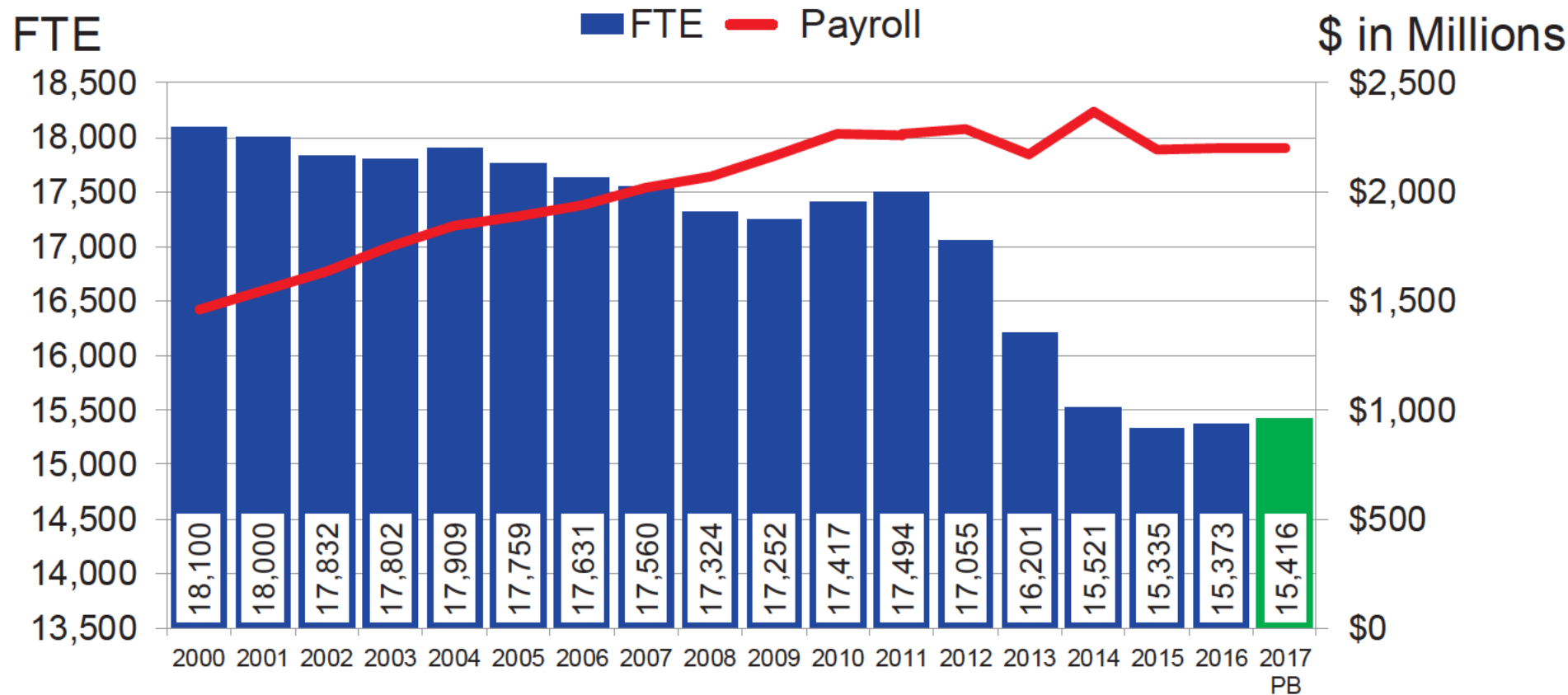


- **National Environmental Policy Act (NEPA)** 1969
- **Clean Air Act (CAA)** – 1970, amended 1977, 1990
- **Clean Water Act (CWA)** – 1972, amended 1977, 1987
- **Safe Drinking Water Act (SDWA)** 1974, amended 1996
- **Resource Conservation and Recovery Act (RCRA)**, 1976, amended 1984, 1986
- **Toxic Substances Control Act (TSCA)**, 1976, TSCA 21 in 2016
- **Superfund (Comprehensive Environmental Response Compensation and Liability Act, CERCLA)** 1980, amended 1986
- **Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)** 1996



# FTE & Payroll

2000 – 2017 (Number of FTE, Dollars in Millions)



Operating Plan (Op Plan) Budgets FY 2000 to 2016, 2017 President's Budget (PB)

- Payroll Costs keep rising due to Cost-of-Living pay increases, increased benefits costs (particularly health care), and employee step increases.
- Since FY 2000, despite 2,600 fewer FTE, payroll is up by \$700 million
- Includes reimbursable FTE (338 in 2017), but not on-site contractors and others who work on site.



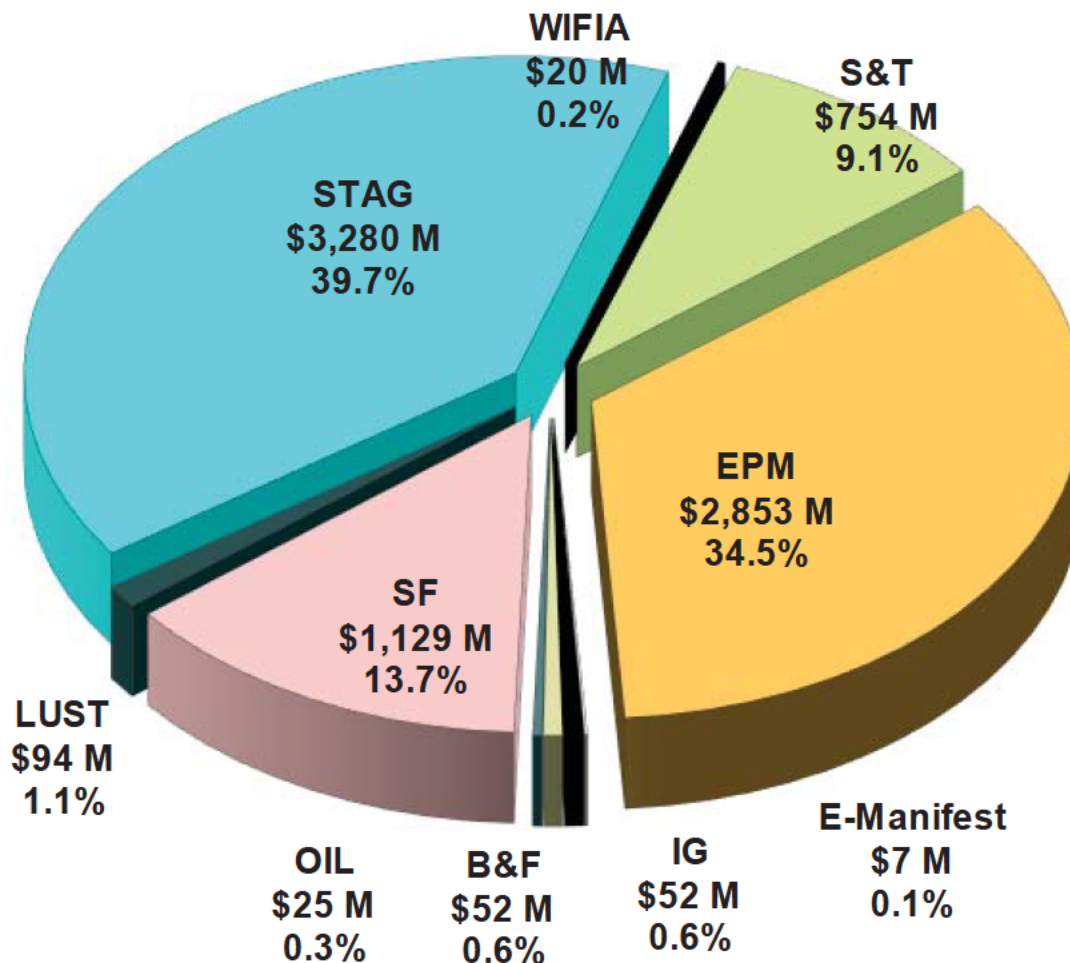
# EPA's Budget by Appropriation

FY 2017 \$8.3 Billion President's Budget



(Dollars in Millions)

Note – Each Appropriation is described in the following slide



- Science & Technology (S&T)
- E-Manifest (E-Man)
- Buildings & Facilities (B&F)
- Hazardous Substance Superfund (SF)
- State & Tribal Assistance Grants (STAG)

- Environmental Programs & Management (EPM)
- Inspector General (IG)
- Inland Oil Spill Programs (OIL)
- Leaking Underground Storage Tanks (LUST)
- Water Infrastructure Finance & Innovation Program (WIFIA)



# EPA Appropriations



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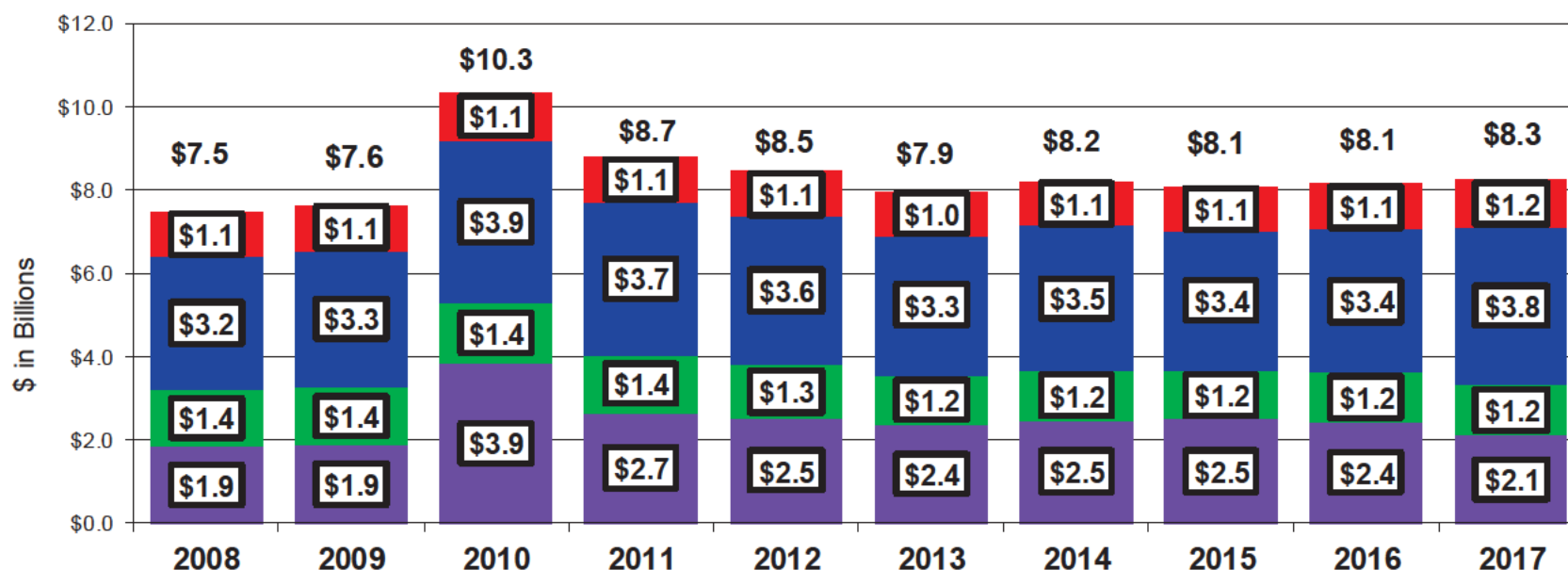
# EPA Budget by Type of Spending

## Dollars in Billions by Fiscal Year



The EPA's Budget has 4 major types of funding (color coded below, with appropriations noted):

- 1) **Categorical Grants** – Funds state, local, and tribal air, water, waste and other environmental programs (within STAG appropriation)
- 2) **Operating Budgets** – Funds payroll, support costs, contracts and some grants for EPA's regulatory, monitoring, enforcement and other core programs. (EPM, S&T and B&F)
- 3) **Trust Funds** – Superfund, LUST, OIL trust funds pay for immediate response and long term clean up for Superfund, storage tank and oil spill sites respectively (must be appropriated)
- 4) **Infrastructure Funding** – Majority is the Clean and Drinking Water State Revolving Funds (SRFs) that provide low interest loans and/or loan subsidies for water projects (within STAG)



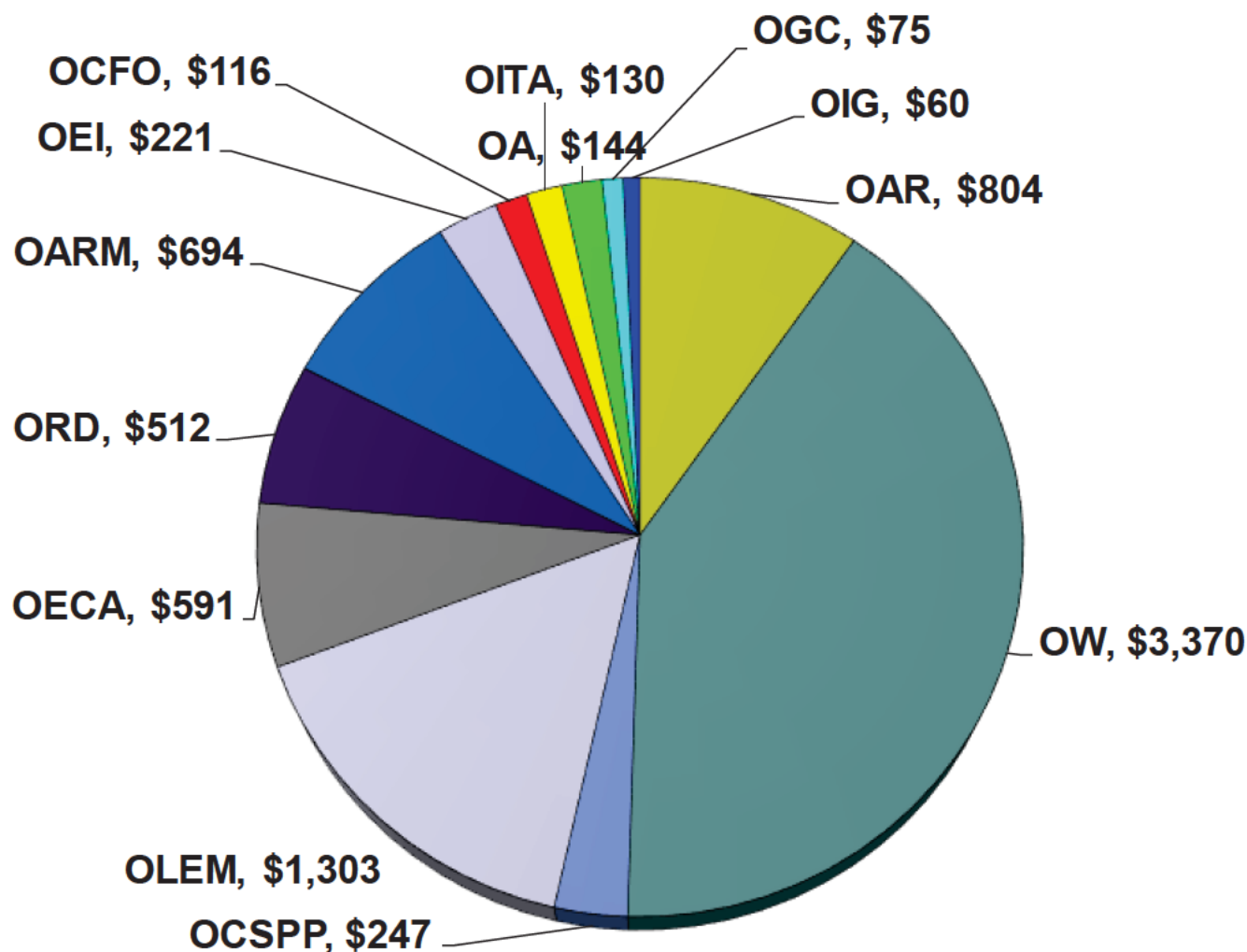
Operating Plan (Op Plan) Budgets FY 2008 to 2016, 2017 President's Budget (PB)





# EPA Budget by National Program Manager

FY 2017 President's Budget, Dollars in Millions



## Notes

1) National Program Manager (NPM) acronyms are explained on the following slide

2) Varying portions of NPMs' budgets are managed by the EPA Regions

3) State grant funds are significant portion of resources for OW, OAR, OLEM and OEI and OITA.

**OW has the largest budget, the bulk is for the Clean and Drinking Water State Revolving Fund (SRF) grants**



# EPA's Organization



## The EPA is organized into 13 National Program Managers (NPMs) and 10 Regions

- These 23 organizations take the primary responsibility for managing funds
- Most NPMs have operations in Washington DC area and in the Regions
- Some NPMs also directly manage field offices around the country, such as research laboratories or Research Triangle Park (RTP)

### The NPMs are called the Offices of:

- Administrator (OA or AO)
- Air & Radiation (OAR)
- Administration & Resource Management (OARM)
- Chief Financial Officer (OCFO)
- Chemical Safety and Pollution Prevention (OCSPP)
- Enforcement and Compliance Assistance (OECA)
- Environmental Information (OEI)
- General Counsel (OGC)
- Inspector General (OIG)
- International and Tribal Affairs (OITA)
- Land and Emergency Response (OLEM)
- Research And Development (ORD)
- Water (OW)

### The EPA Regions are located in the 10 Federal Cities and manage operations and relationships with the surrounding states.

1. Boston, MA
2. New York, NY
3. Philadelphia, PA
4. Atlanta, GA
5. Chicago, IL
6. Dallas, TX
7. Kansas City, KS
8. Denver, CO
9. San Francisco, CA
10. Seattle, WA

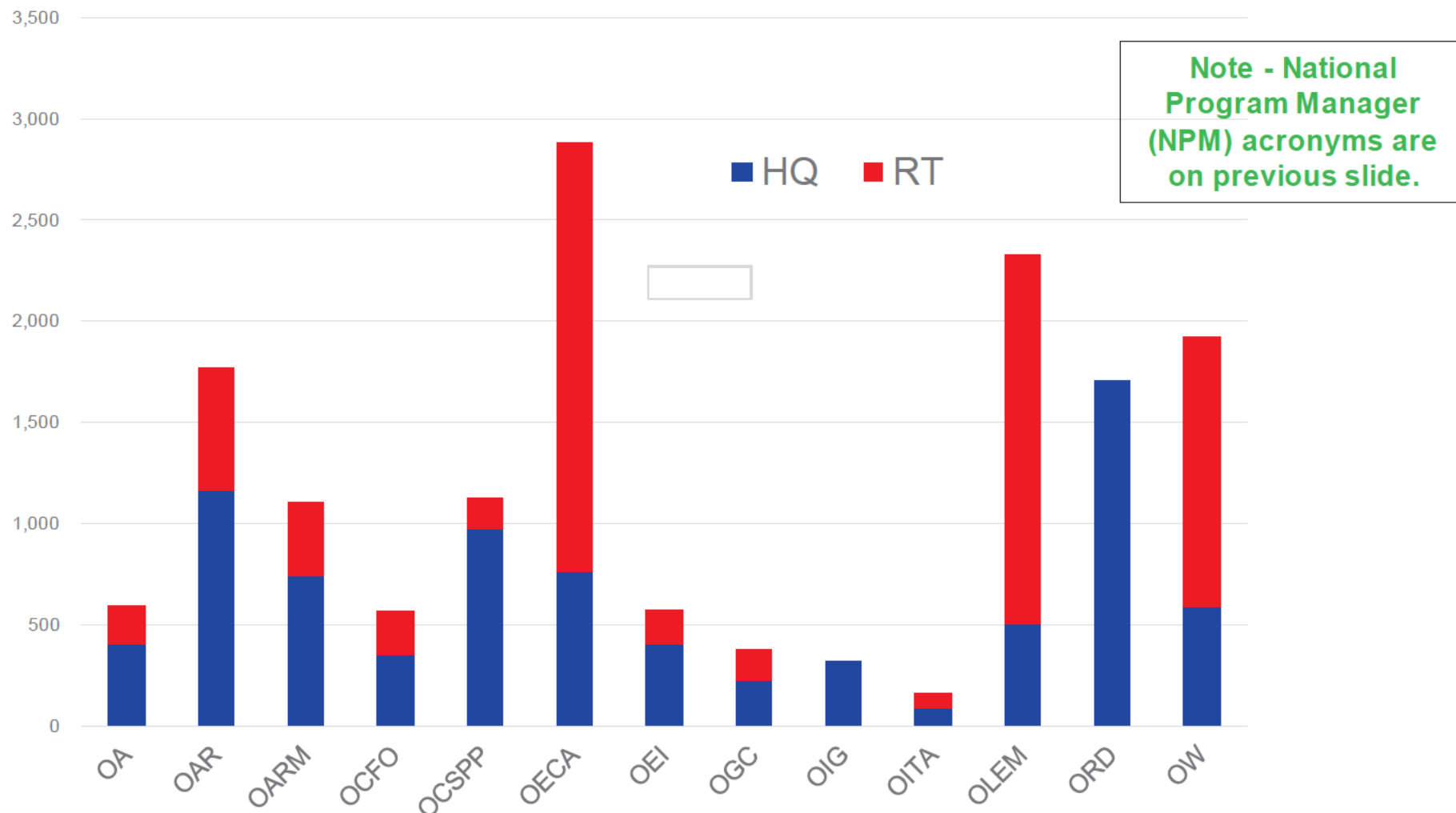
*Roughly half of the EPA's employees work in the Regions, one-third work in the DC metro area reporting to the NPMs directly, while about one-sixth work in laboratories and field offices around the country but report directly to the NPM.*



# Staffing by EPA Program EPA Federal Employees



Full Time Equivalents (FTE) in FY 2017 PB  
By National Program (NPM) with HQ / Regional Split



The EPA's NPMs have staff working in HQ and Regional offices to varying extents. HQ also includes field offices (RTP, Cincinnati, Ann Arbor, laboratories, etc). OECA has the most employees, most of whom work in the Regions





# EPA Budget by Strategic Plan Goal (FY 2017 PB)

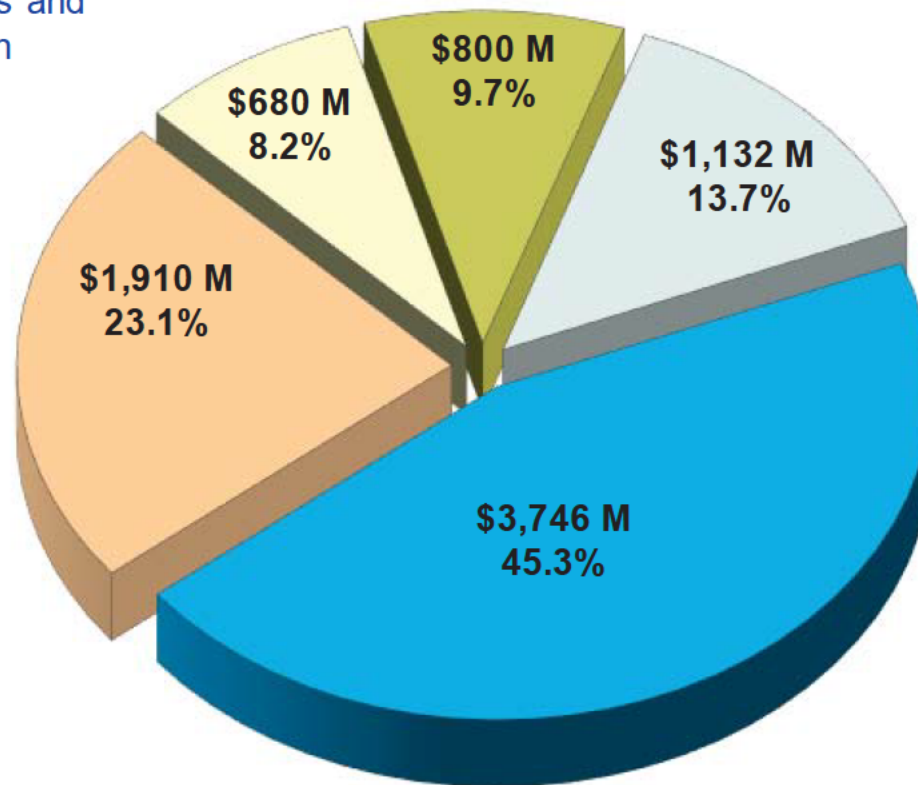


**Goal 4** – Ensuring the Safety of Chemicals and Preventing Pollution

**Goal 5** – Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

**Goal 1** – Addressing Climate Change and Improving Air Quality

**Goal 3** – Cleaning up Communities and Advancing Sustainable Development



**Goal 2** – Protecting America's Waters

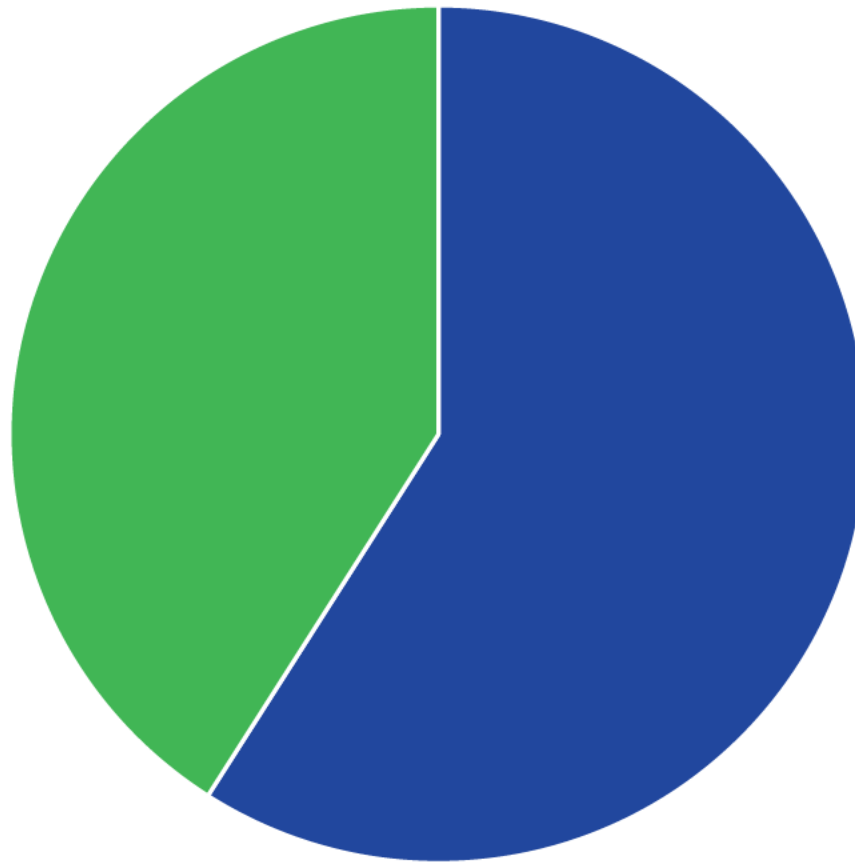
Goal 2 "Protecting America's Waters has the largest budget due to the Clean and Drinking Water State Revolving Funds (SRFs)



# States & Tribes Direct Funding as Portion of the EPA Budget



State and  
Tribal  
Funding  
41%



All Other  
EPA  
Funding  
59%

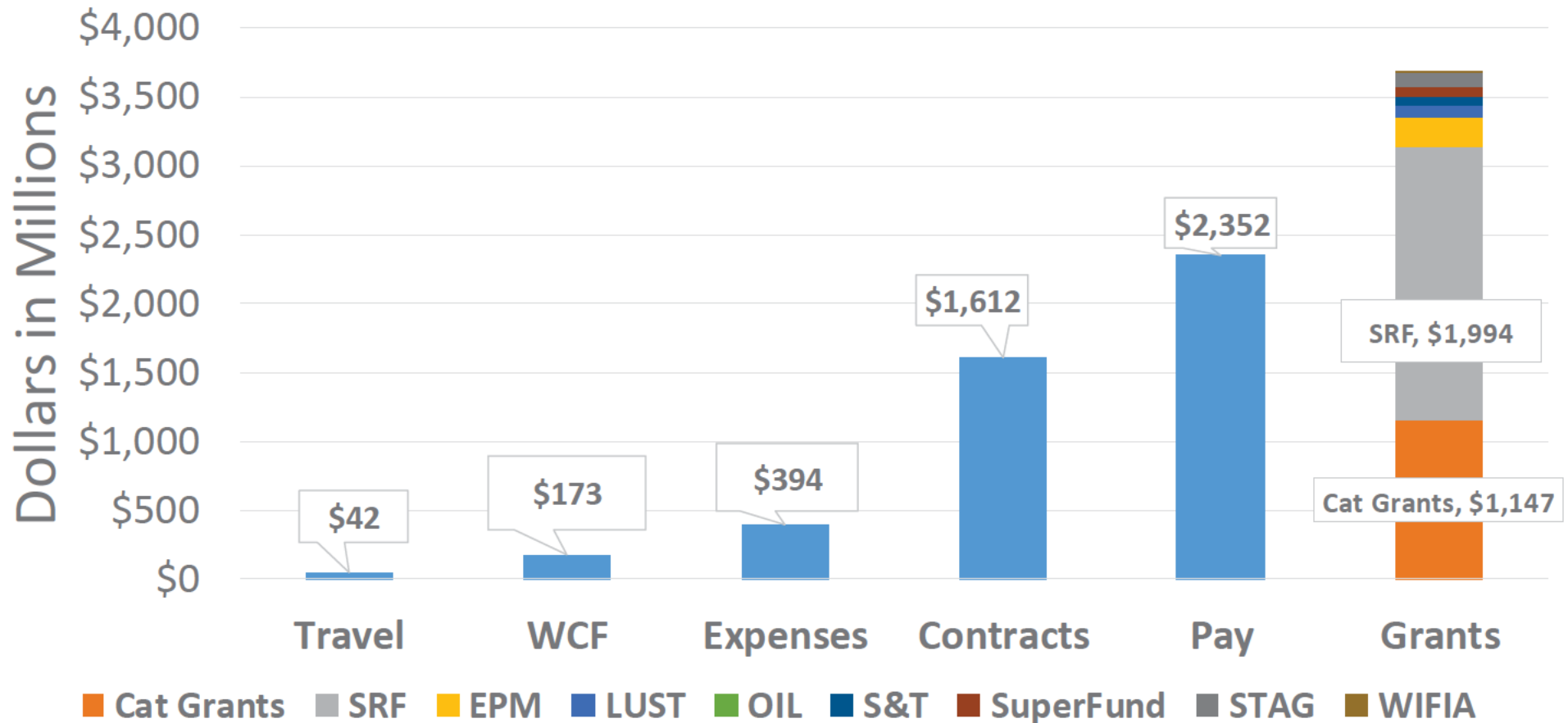
**41% of the EPA's FY 2017 funding will go to States & Tribes as grants.** This includes State and Tribal Assistance Grants, which fund ongoing state and tribal environmental programs (including staff); and Clean Water and Drinking Water State Revolving Funds, which provide loans for water infrastructure; as well as some other grant programs.

- **Note** – Over 90% of EPA's grants (shown on following slide) go directly to states and tribes through formula grants. The remaining are competitive grants that may go to states, tribes or may be given to other entities.



# EPA Budget by Type of Spending (Object Class)

FY 2017 President's Budget \$8.26 Billion



Almost half of the EPA's dollars are for grants, 30% for payroll and 20% for contracts.

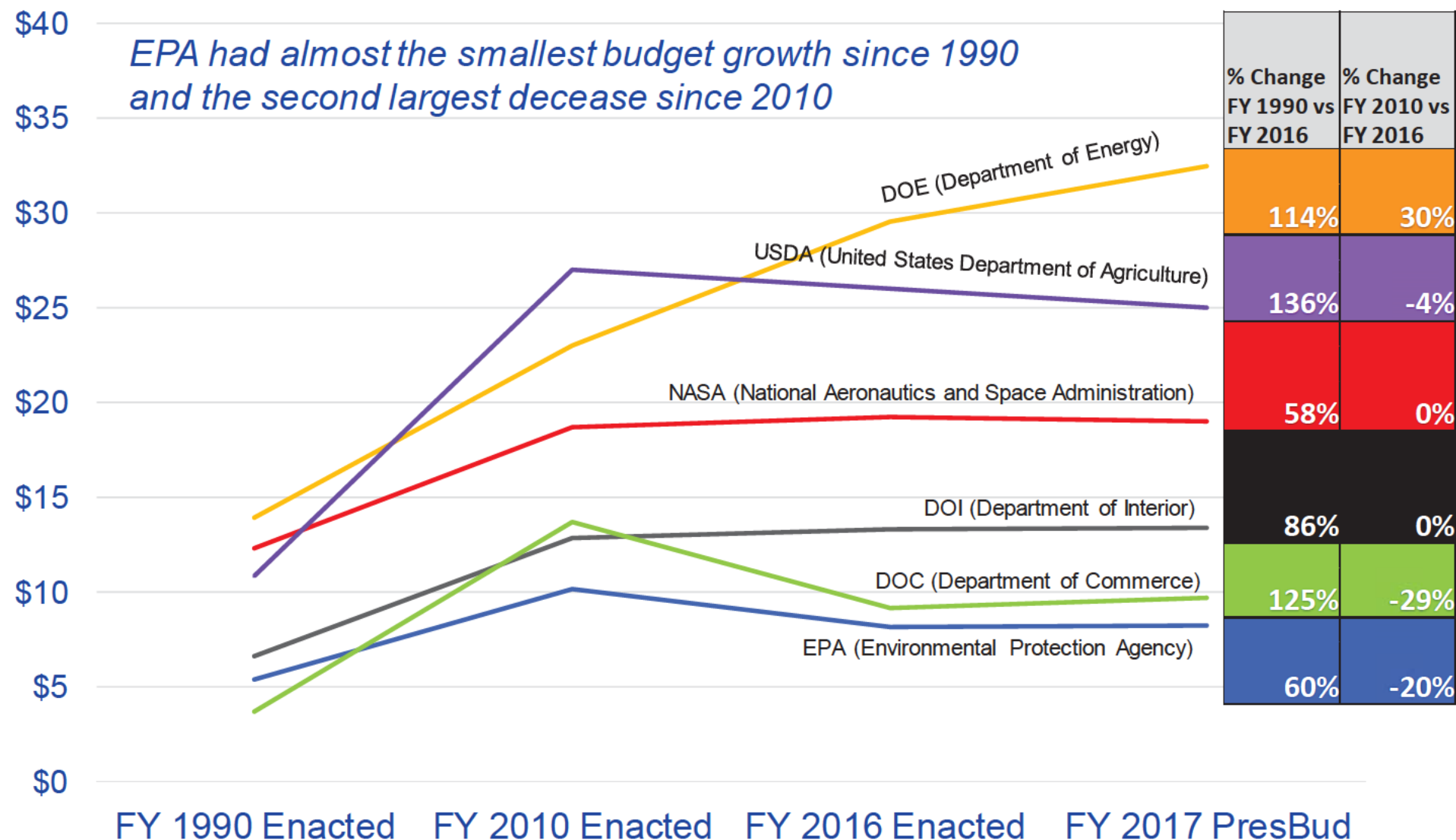
- Chart also shows additional details about grants – highlighting the 2 major sources of grant funding for states – the State Revolving Funds (SRFs) and Categorical Grants.
- The Agency continues to engage with the General Accountability Office (GAO) on a report with the working title of "EPA's Management of Discretionary Grants". A release date for the report has not been set. OARM is the Lead Office for this engagement.



# Natural Resources and Science Agency Comparison of FY 1990, 2010, 2016 Enacted and FY 2017 PresBud Budgets



Dollars in Billions



## Notes

- FY2010 included a substantial 1 year increase to SRFs and Superfund
- USDA excludes Mandatory spending (in excess of \$100 billion dollars)

# EPA REGULATORY DEVELOPMENT PROCESS

## SUMMARY

- There is an established internal process (the Action Development Process or ADP) at EPA for developing rules and other agency actions that facilitates cross-agency participation where appropriate, and gives senior management multiple opportunities to provide guidance and direction to staff at key points.
- Significant regulatory actions are sent to the Office of Management and Budget for interagency review under Executive Order 12866.

## BACKGROUND

Developing environmental regulations is one of main ways EPA achieves its mission of protecting human health and the environment. The EPA typically prepares and releases between 500-600 actions a year that define the technical and operational details of environmental programs. Of these, around 120 actions are signed by the Administrator.

These actions are prepared using the ADP. This process is managed by the Office of Policy and emphasizes collaboration among EPA offices and sound scientific, economic, legal, and policy analyses. The ADP ensures that key issues are presented to senior management at the appropriate stages in action development.

## ACTION DEVELOPMENT PROCESS:

Recognizing that actions can differ greatly in their scope, cost, complexity, and impacts, each action is initially assigned a tier that determines the level of the decision maker for the action and the degree of cross-Agency involvement the action may require. Tier 1 actions are the most complex actions and may involve precedent setting issues, have high costs and/or benefits, may have a high level of external interest, and/or significantly impact the work of more than one agency program. For Tier 1 actions, the Administrator is typically the decision maker. In contrast, Tier 3 actions are developed entirely within a single EPA office and are typically routine or non-controversial, and do not require extensive cross-agency interactions. Tier 2 actions are somewhere in between.

### Major Development Steps for Tier 1 and 2 Actions

Tier 1 and 2 actions are developed by an intra-agency workgroup with a lead National Program or Region. The workgroup completes formal ADP milestones to ensure that senior management is involved early and provides guidance throughout the process. The major steps in the process are:

1. **Early Guidance** – Discussion of a project plan that outlines what data will be collected, what preliminary options will be examined, how they will be analyzed, and which stakeholder groups will be consulted.
2. **Analytic Blueprint** - An Analytic Blueprint is a workgroup's plan for conducting analyses to support action development, is informed by Early Guidance, and outlines how the workgroup will collect and analyze data and information to develop policy options.
3. **Options Selection** – Once options are analyzed, the decision maker will hold a meeting that includes senior managers from other participating offices and the workgroup to select a course of action. Options selection

meetings give management the opportunity to review the major scientific and economic analyses the workgroup has prepared and direct the workgroup in how to complete the draft action.

4. **Final Agency Review** – Once the action and any supporting analyses are developed, the lead office distributes it for review. Each National Program and Region represented on the workgroup is asked to provide a formal position on the package. If there are significant outstanding issues, the matter is elevated for resolution.

### **Tier 3 actions**

Lead offices have considerably more discretion and flexibility to decide what methods are appropriate for developing Tier 3 actions. However, Tier 3 actions still include all offices expressing an interest in participating.

### **Recent Updates**

EPA first designed the ADP almost 30 years ago. The agency's senior management and professional staff have periodically reviewed, reinforced and strengthened these procedures to encourage better planning and analysis and promote improved collaboration among offices and agencies. Most recently, in 2015 EPA implemented a number of changes that included removing unnecessary materials or steps, increasing early engagement and cross-agency participation, encouraging prompt elevation of issues, and facilitating development of fast-moving actions through a standardized waiver process.

### **Typical Number of Rules**

The Administrator generally signs around 120 actions each year. Typically around 10% of these are Tier 1 and 60% are Tier 3. Of the 120 actions, the Office of Air and Radiation has the lead for approximately 70% of them.

### **Related Requirements**

Rules issued by the agency also have to comply with various statutes and Executive Orders related to rulemakings. EPA typically addresses 11 of these in preambles and the most notable include:

- Executive Orders 12866 and 13563 that define EPA's relationship with the Office of Management and Budget and lay out analytical and interagency procedural requirements for rulemakings.
- The Regulatory Flexibility Act as amended by SBREFA provides analytical and procedural requirements related to a rule's impact on small entities (primarily businesses) and requires EPA to work with OMB and the Small Business Administration's Office of Advocacy to consult directly with affected small entities if a rule has a "significant impact on a substantial number of small entities".
- Executive Order 12898 requires EPA to identify and address disproportionate impacts from rules on minority and low-income populations.
- The Paperwork Reduction Act generally provides that every federal agency must obtain approval from OMB before using identical questions to collect information from 10 or more persons. Many of EPA rules involve information collection. At EPA this process is managed by OEI.



- Executive Order 13132 requires EPA consult with state and local officials or representative national organizations on certain rules that impact state or local governments or preempt state or local laws.

#### OMB REVIEW OF SIGNIFICANT ACTIONS:

EPA works with OMB to determine in advance which agency actions OMB will review and these are deemed “significant” regulatory actions. Actions are generally “significant” because they impose high costs or implicate a novel policy issue. While there is no direct relationship between the internal EPA Tier of an action and the criteria for determining OMB significance, OMB generally reviews nearly all of EPA’s Tier 1 and Tier 2 actions and some tier 3 actions. OMB reviews a total of approximately 65 actions per year.

If OMB review is necessary, EPA must submit the action to OMB and address comments from OMB and other interagency reviewers. All actions requiring interagency review are transmitted by the Office of Policy to OMB using a dedicated database. Actions that are under review are displayed on OMB’s public RegInfo.gov website. EPA is also required to docket the version of the action submitted to OMB for review and to identify substantive changes made during interagency review.

# FINANCIAL ASSURANCE

## ISSUE SUMMARY

Financial assurance issues continue to receive attention within, and outside of, the agency. This includes a recent EPA Office of Inspector General (OIG) report and EPA rulemaking activities (CERCLA 108(b)).

Financial assurance requirements vary in scope, purpose, and applicability across EPA programs. These requirements can help ensure protection of human health and the environment by supporting the implementation of important regulatory and enforcement/cleanup requirements. FA requirements help to avoid the costs of cleanup from being passed to other parties or the public, and can provide an incentive for regulated entities to exercise a higher level of care.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- **December 1, 2016-** CERCLA 108(b) Hardrock Mine Financial Assurance Rule Proposal and CERCLA 108(b) Determination on Additional Classes of Facilities are scheduled to be signed December 1, 2016. For additional information on these CERCLA 108(b) activities please refer to the paper *CERCLA 108(b) (Financial Assurance for Hard Rock Mining)* in the transition documents.

## BACKGROUND:

- EPA has established FA requirements for regulated entities under various programs, including for hazardous waste treatment, storage, and disposal facilities, municipal solid waste landfills, and underground storage tanks under RCRA; for underground injection wells under the SDWA; and PCB storage facilities under TSCA. EPA also requires financial assurance pursuant to CERCLA settlements and orders (that is distinct from CERCLA 108(b), mentioned above).



- EPA financial assurance regulations typically allow for multiple types of instruments, such as: trust funds; surety bonds; letters of credit; insurance policies; and a financial test (commonly called “self-insurance”) and associated corporate guarantee.
- In its response to the OIG Management Alert discussed above, the responding offices (OECA and OLEM) stated they agree that managing financial assurance under RCRA and CERCLA is important to ensure environmental obligations are met. The offices stated that they agree with the OIG that data gaps exist in the RCRA and CERCLA financial assurance data systems. Although those offices do not believe that the data gaps rise to the level of a "material weakness" under FMFIA, OECA and OLEM agreed to use the existing FMFIA process to discuss and address OIG's concerns with the RCRA and CERCLA financial assurance data systems and to pursue opportunities to improve the Agency's financial assurance data systems.

#### KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Government      ☐ Other (name of stakeholder) \_\_\_\_\_

#### MOVING FORWARD:

- (b) (5) [REDACTED]  
[REDACTED]  
[REDACTED]
- EPA is subject to court-ordered deadlines for action under CERCLA 108(b). See relevant paper referenced above for more information.

LEAD OFFICE/REGION: OLEM

OTHER KEY OFFICES/REGIONS: OECA, ALL REGIONS

# FLINT, MICHIGAN (LEAD IN DRINKING WATER)

## ISSUE SUMMARY:

Since January 2016, EPA has provided sustained federal assistance to support State and local response efforts related to high levels of lead found in drinking water of homes in Flint, Michigan. After the ensuing months of sustained federal involvement -- which included an emergency declaration signed by the President, issuance of an imminent and substantial endangerment order, direct sampling, and other technical assistance there has been substantial improvement in the quality of water delivered to Flint residents.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- Also on January 18<sup>th</sup> and 20<sup>th</sup>, EPA will participate in sub-committee and committee meetings with the Flint Water Interagency Coordination Committee (FWICC). The Water Quality subcommittee of the FWICC will provide guidance to the primary committee regarding the state of the water system and water quality. The purpose of the sub-committee is to review available data and make recommendations to the state (governor) and City (mayor). Sub-committee membership includes environmental, health, and medical experts.

## BACKGROUND:

In April 2014, the City switched from purchasing finished drinking water from Detroit to treating raw water from the Flint River. The inadequacy of the water treatment combined with highly corrosive source water led to the stripping of the protective orthophosphate layer from pipes throughout the drinking water distribution system, causing lead levels to spike. EPA's Regional Administrator ultimately resigned amid allegations of inappropriately suppressing information and other actions by State officials and EPA's alleged knowledge thereof.

In October 2015, Flint returned to purchasing properly treated water from Detroit and EPA formed the Flint Safe Drinking Water Task Force to provide technical assistance to the State and the City as they reinstated appropriate control measures in the Flint water system.

In January 2016, President Obama signed an emergency declaration ordering federal assistance to support State and local response efforts, including a sustained on the ground presence led by HHS and robustly supported by EPA. Also in January, EPA issued a SDWA 1431 Order to the State and the City to take immediate action to address concerns with the safety of the drinking water system.

Since **January 2016**, the quality of water delivered to Flint residents has improved. Lead levels in drinking water have declined and corrosion control treatment is being maintained in the system. EPA is also monitoring chlorine in the system to ensure there is an adequate barrier against bacteria. Over the course of the next year, EPA will work through the State to guide the City on proper management of key water treatment components, including maintenance of corrosion control treatment and adequate chlorine distribution.

While continued water safety is paramount, there is also a need for an interagency effort focused on the health, environment, economy, housing, and long term community planning needs of Flint. As of **September 2016**, working in partnership with other Federal agencies (EDA, HUD, CDC, etc.), over \$51 million in grant funding has been provided to state and local agencies and organizations.

On **October 13, 2016**, an administrative claim was filed against the Agency under the Federal Tort Claims Act (FTCA). Under this one FTCA claim, six law firms are representing a class of 1,705 claimants seeking a total of \$722,400,000 in damages against the Agency. EPA is working closely with DOJ regarding this claim.

On **November 17, 2016**, EPA issued the First Amendment to its January 2016 Order to provide clear milestones and oversight of the City's intended switch to a new drinking water source. The Amendment requires that the City take specific actions, which include providing written confirmation of its plan to switch the drinking water source to Karegnondi Water Authority (KWA).

On **November 21, 2016**, EPA provided written response to an OIG alert released on October 20, 2016, concerning EPA authority to issue drinking water emergency orders. In its response, EPA indicated that it agreed with specific OIG's recommendations that the Agency update final guidance on emergency authority under Section 1431 of the Safe Drinking Water Act (1991), and train drinking water and water enforcement program management and staff on the emergency authority and updated guidance. EPA's understanding is that the OIG's evaluation of the Flint drinking water is ongoing and OIG plans to issue a separate, more comprehensive report in 2017.

Also in November 2016, EPA worked with the State to establish a subcommittee of the Flint Water Interagency Coordinating Committee, to engage health and water experts (e.g., EPA, HHS, NGOs) to periodically review progress of water recovery, specifically addressing reliance on bottled water and filters. Also in November, EPA identified an EPA Region 5 Senior Program Manager and Deputy Senior Program Manager who will oversee work in Flint, and a Headquarters Flint Coordinator from the Office of the Administrator.

In **December 2016**, EPA continued to provide field technical support working through the State to guide the City on proper management of water quality parameters for corrosion control and in particular, adequate chlorine residual in the treatment plant and distribution system. The Task Force will continue to provide technical support as needed to review plans and provide overall guidance. EPA's outreach team focused on educating Flint residents on the current state of recovery of the water system and emphasizing the importance of proper filter use and maintenance.

On **January 10, 2017**, EPA Region 5 coordinated the agency's third "data summit" to evaluate recent sampling and monitoring data collected by EPA, State, City, and other parties. Presentations from this meeting provided an update of corrosion control, disinfection, and distribution system optimization progress. Also, biological assessment presentations were given by the CDC, University of Michigan and Wayne State University.

On **January 11, 2017**, EPA participated in a State and City planned town hall meeting to update residents on the current state of the drinking water system. All agencies presented key findings and messages. EPA will coordinate with stakeholders to continue educating Flint residents on the water system, proper use of filters, and longer term activities, including lead service line replacement.

KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☐ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Governments      ☐ Other: \_\_\_\_\_

MOVING FORWARD:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]

OFFICE/REGION: REGION 5

OTHER KEY OFFICES/REGIONS: OW/AO/OECA

# FOOD WASTE

## ISSUE SUMMARY:

With sustained leadership attention and commitment, EPA has the ability to promote all of the Agency's efforts affecting food, maximizing the resource savings and environmental benefits of reducing food waste, and improving economic development in our communities. EPA promotes better food management by influencing actions that strive to reduce air and water impacts, promote local food production as a means of diversifying local economies, creating jobs, growing sustainable farming and manufacturing, and improving competitiveness and resiliency.

## BACKGROUND:

The production, transportation, processing, packaging, preservation, distribution, preparation, consumption, and disposal of food are crucial for public health and vital economically, but are also resource intensive and generate environmental impacts. Food and beverage manufacturing rivals, and often exceeds, many traditional manufacturing sectors in terms of energy and water use, waste generation, and other environmental impacts. The transportation, storage, distribution, and delivery of prepared foods create yet more impacts. Roughly half of all fruit sold in the United States is imported, and even produce grown in North America travels an average 1,250 miles from source to point of sale. Refrigerated and frozen food requires energy-intensive equipment, further increasing energy use.

Globally around one-third of food produced for human consumption – roughly 1.3 billion tons per year – is lost or wasted. U.S. consumers alone spend nearly \$218 billion per year on food that is never eaten. In 2013, only five percent of the 37 million tons of food waste generated was diverted from disposal, at a time when more than 42 million Americans live in food insecure households. Food is the largest portion – 21% – of the American municipal waste stream, and a main contributor to the 20 percent of U.S. methane emissions that come from landfills. These impacts represent extensive waste and lost resources, degrading the environment while weakening businesses and economies.

EPA offices have a variety of voluntary initiatives underway to improve the environmental and economic impacts of food. For example:

- With USDA, CDC, HUD and other agencies, the Office of Policy (OP) provides rural communities with "[Local Foods, Local Places](#)" economic development planning assistance to help leverage local food enterprises to diversify local economies and create economically vibrant neighborhoods by developing local food systems;
- The Office of Land and Emergency Management's (OLEM) voluntary [Food Recovery Challenge](#) diverted more than 690,000 tons of food waste from disposal in 2015, donating more than 300,000 tons. EPA, USDA, and others have also developed a Call to Action identifying opportunities and challenges for reducing food loss and waste in the United States;
- The Office of Chemical Safety and Pollution Prevention's (OCSPP) [Food Manufacturing](#) Pollution Prevention (P2) National Emphasis Area is implementing projects with food manufacturers focused on lowering GHG emissions, water usage, hazardous materials generation and use, and/or business costs;

- The Office of International and Tribal Affairs (OITA) is convening international experts to improve food waste measurement and the methodology and tools to support correlating food waste reduction with estimates of environmental benefits;
- The Office of Air and Radiation's (OAR) voluntary [GreenChill](#) partnership with food retailers works to reduce refrigerant emissions, saving resources and money while decreasing ozone layer impact and climate change; and
- The Office of Research and Development (ORD) has several efforts, including research into sensor units able to rapidly characterize unused food or food waste and expedite time sensitive food management decisions.

These are only several of many notable, unique examples across EPA offices and regions.

On September 16, 2015, in alignment with UN Sustainable Development Goals Target 12.3, USDA and EPA announced the first domestic goal to reduce food loss and waste by half by the year 2030. EPA also belongs to [Champions 12.3](#), a global public-private coalition supporting the goals. In October 2016 USDA and EPA announced the 2030 Champions, private businesses and organizations committed to the goal.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Governments      ☒ Other (name of stakeholder) Municipalities, Communities

Legislation has been introduced in Congress, such as the Food Date Labeling Act of 2016 which would establish national standards for quality and safety dates in food labeling to reduce the premature disposal of food that is still fit to eat. States, communities, NGOs, corporations, academia and others look to and are working with EPA and related agencies such as USDA for assistance and guidance on analysis, data, convening and communicating with and among stakeholders, education, and more. EPA works to understand, coordinate, and fulfill its varied roles on this broad topic.

#### MOVING FORWARD:

(b) (5)

[REDACTED]

LEAD COORDINATING OFFICE: OP

KEY OFFICES/REGIONS: OLEM, OCSP, OP (OSC), ORD, OITA, OPA, OW, R9, R10

Glyphosate, the herbicide used in the weedkiller “Roundup,” is the leading agricultural pesticide sold in the U.S., and use of glyphosate has increased in the U.S. as more genetically engineered crops have been integrated into agricultural production. In March 2015, the International Agency for Research on Cancer (IARC) classified glyphosate as a “probable human carcinogen.” EPA has proposed to classify glyphosate as “not likely to be carcinogenic to humans at doses relevant for human health risk assessment.”

- (b) (5) [REDACTED]

(b) (5)

The registration review of glyphosate required by FIFRA began in 2009. (b) (5)

(b) (5)

In preparation for the FIFRA SAP meeting, in mid-September, EPA released all relevant documents and supporting materials on its evaluation of the cancer potential of glyphosate to the public. EPA's proposed classification of glyphosate is "not likely to be carcinogenic to humans at doses relevant for human health risk assessment." This finding is in line with recent findings in Australia, Germany, Canada, New Zealand, the European Food Safety Authority, and the Joint Food and Agriculture Organization/World Health Organization Meeting on Pesticide Residues.

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☒ Industry    ☐ States    ☐ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☐ Local Government    ☒ Other: Growers

**Key stakeholder concerns:**

**Glyphosate's potential carcinogenicity:** On April 29, 2016, EPA inadvertently released 14 glyphosate documents via the glyphosate public docket, including a memo dated October 1, 2015, from the Office of Pesticide Programs' CARC that classified glyphosate as unlikely to be carcinogenic. The Agency removed the documents on May 2, 2016. This accidental release has led to Congressional and other stakeholder interest. In preparation for the upcoming SAP meeting, the CARC memo is now available in the public docket for the SAP meeting. The postponement of the SAP meeting has generated considerable stakeholder interest, including litigation under the Freedom of Information Act.

**Weed resistance management:** Glyphosate is used so commonly that more than a dozen weed species have developed a resistance to it.

**Glyphosate residues in honey:** The Food and Drug Administration recently tested honey samples for residues of glyphosate and found positive detections.

**Glyphosate residues in human breast milk:** The grassroots nonprofit group, [Moms Across America](#), which raises awareness about genetically modified organisms, has indicated it has evidence that residues of glyphosate have been detected in human breast milk. (b) (5)

**Glyphosate residues in vaccines:** Moms Across America recently indicated that it has laboratory evidence that residues of glyphosate have been detected in vaccines. (b) (5)

## MOVING FORWARD:

- (b) (5)

LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS: ORD, OCHP



# GOLD KING MINE

## (BONITA PEAK MINING DISTRICT)

### ISSUE SUMMARY:

On **August 5, 2015**, EPA employees and contractors were investigating the Gold King Mine (GKM) near Silverton, Colorado and approximately three million gallons of acid mine water were released into nearby Cement Creek. The plume eventually travelled to the Animas River and San Juan River. The release generated significant interest from the press, Congress, downstream communities, Utah, Colorado (CO), New Mexico (NM), and Tribal nations. NM and the Navajo Nation have filed lawsuits against EPA, and Utah is expected to file a suit soon. Additionally, NM is pursuing a similar lawsuit against CO in the U.S. Supreme Court, (b)(5) (DPP)

### UPCOMING MILESTONES:

- (b) (5)  
 Reimbursement of state, local and tribal CERCLA response costs to date total over \$1.6 million. EPA is working closely with DOJ regarding the Federal Tort Claims Act administrative claims that have been filed related to this matter. The agency has received at least 70 administrative claims to date. Also, in November 2016, NM moved to amend its complaint against EPA to add Federal Tort Claims Act claims to its lawsuit.
- Utah has notified EPA that it intends to file a complaint against the Agency in the near future.
- In **December 2016**, EPA's Office of Research and Development expects to release a final report on the analysis of the transport and fate of metals in the rivers as a result of the release.  
 By late **December 2016**, EPA's Office of the Inspector General (OIG) expects to complete a program evaluation of the incident. (b) (5)
- The Federal District Court in New Mexico consolidated the lawsuits brought by NM and the Navajo Nation against EPA. EPA's current deadline to respond to the consolidated lawsuit is **January 19, 2017**. (b) (5)  
 We are awaiting the court's decision.

### BACKGROUND

**August 2015 Release:** The release occurred when an EPA team was investigating the GKM as a source of metals loading to the Animas River. Following the release, an orange-colored plume flowed down from the Animas River to the San Juan River over a period of eight days. Shortly after the release, EPA alerted CO, NM, AZ, Utah, and three tribes (Navajo Nation, Southern Ute Indian Tribe, and Ute Mountain Ute Tribe) that the release had occurred.

While EPA later determined the volume of the release to be equivalent to four-day's-worth of current acid mine drainage from the mining area, the Agency took precautions to ensure that all affected localities had sufficient data to inform their decisions regarding drinking water, as well as ongoing agricultural and recreational use of these waters. All areas lifted limitations on river use before the end of **August 2015**, with the exception of the Navajo Nation. EPA later determined that the GKM release was comparable to one day of high spring runoff.

A year after the release, in **August 2016**, EPA completed a retrospective [report](#) summarizing the Agency's efforts to address GKM. In addition, based on a Congressional request, the U.S. General Accountability Office (GAO) conducted an investigation of the U.S. Department of Interior's technical evaluation of the incident. [Media coverage](#) in early **November 2016** indicated GAO has shared its results with the Congressional requestors in an oral briefing rather than a formal report. On **September 9, 2016**, EPA added the BPMD, which includes GKM, to the Superfund National Priorities List (NPL).

(b) (5)

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On **November 14, 2016**, EPA began a 30-day public comment period for a proposed engineering evaluation/cost analysis and expects to present findings by early **December 2016**. Also during this week, EPA hosted a series of public meetings covering the year in review at the Bonita Peaks Mining District (BPMD) site, which includes GKM, as well as a workshop with co-regulators to address regulatory avenues to improve water quality in the San Juan River. Before making a final decision, EPA will consider all comments received during the public comment period.

On **November 15, 2016**, the State of New Mexico moved for leave to file an amended complaint to add claims under the Federal Tort Claims Act.

To date, EPA has dedicated more than \$29 million to respond to the GKM release and provided for continued monitoring in the area. The majority of the funds are being used to stabilize the mine adit and mitigate ongoing acid mine drainage. In addition to an EPA-led, year-long monitoring program to evaluate any lasting effects of the release (still in process). EPA provided more than \$2 million to states and tribes to support their water quality monitoring of the Animas and San Juan Rivers. EPA also contributed funding for a network of continuous monitoring stations intended to improve the notification process for high metals due to storm events, future events, etc.

**History of Area:** Water quality in the BPMD has been impaired by acid mine drainage for decades. BPMD is home to many mines that extracted gold, silver, lead, and copper starting in the 1870s, until operations ceased in the early 1990s. Following inadequate and incomplete closures by various mine owners and operators, EPA and CO began investigating the area to reduce metals loadings from acid drainage into the Animas Watershed. The Upper Animas Watershed has historically received heavy metal discharges from mines (active, inactive, or abandoned), as well as from naturally occurring formations, with mines in the area discharging an average of 5.4 million gallons per day into the Watershed.

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☐ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☒ Other (name of stakeholder) Animas River Stakeholders Group (ARSG)

Stakeholders are concerned about the long-term impacts of the release, in particular, on agriculture and recreation, and the pace of the Superfund site cleanup. They include city, county and state governments in CO, NM, AZ and UT, the three tribes, the Southern Ute Indian Tribe, the Ute Mountain Ute Tribe, and the Navajo Nation as well the Animas River Stakeholders Group.

## MOVING FORWARD:

(b) (5). The site includes 35 mines, seven tunnels and other features where additional information is needed to evaluate environmental concerns. (b) (5).

EPA's current deadline to respond to the consolidated lawsuit filed by NM and the Navajo Nation is **January 19, 2017**. However, DOJ has asked the court to extend EPA's deadline to respond, and we are awaiting the court's decision. (b) (5)

LEAD OFFICE/REGION: REGION 8      OTHER KEY OFFICES: OLEM/OPA/OGC/OW/ORD/R6 & R9

# Great Lakes National Program Office

## ISSUE SUMMARY:

The EPA leads implementation of a multi-agency initiative to restore the Great Lakes ecosystem, enhance the economic health of the region, and ultimately improve the public health protection for the area's 30 million Americans. The Great Lakes economy is one of the largest in the world, with a \$4.5 trillion gross regional product. The direct economic benefits of restoring the Great Lakes are estimated to be at least \$50 billion, considering factors such as reduced costs for drinking water treatment; revenue from tourism, commercial fishing, and recreation; increased coastal property values; cost savings for municipalities; and jobs.

## UPCOMING MILESTONES:

- **February, 2017**– Publication of the following reports: Great Lakes Restoration Initiative (GLRI) Report to Congress and the President; draft Lake Huron Lakewide Action and Management Plan; and draft Domestic Action Plans under the Great Lakes Water Quality Agreement with Canada.
- **May 2017** – EPA plans to issue grants to states, tribes, local governments, universities, and non-governmental organizations from a competitive \$26 million grant offering, using the GLRI appropriation. Grants will fund invasive species control, technology, and collaborations; Lake Erie agricultural phosphorus reduction; implementation of urban and agricultural watershed management plans; and an analysis of agricultural program effectiveness.

## BACKGROUND:

Through the Great Lakes Restoration Initiative (GLRI), EPA leads 16 federal agencies in work focused on Great Lakes protection and restoration. The goal of the interagency collaboration, which has been in place since 2004, is to accelerate progress, avoid potential duplication of effort, and save money. In FY 2010 Congress began authorizing the GLRI as part of EPA's annual appropriations. Funding is used for projects performed by federal agencies, states, tribes, local governments, universities, and nongovernmental organizations. GLRI works to accelerate Great Lakes protection and restoration in the following areas:

- **Toxic Substances and Areas of Concern.** Persistent toxic substances, such as mercury and polychlorinated biphenyls (PCBs), are still present at levels that warrant fish consumption advisories in all five lakes. EPA initially identified 31 U.S. and binational Great Lakes areas of concern requiring cleanup, many from legacy contaminated sediments. The 27 areas of concern that still need to be cleaned up include: Buffalo River (NY); Detroit River (MI); Fox River/Green Bay (WI); Grand Calumet (IN); Maumee River (OH); and St. Louis River (MN). Ongoing sources of persistent toxic substances include: releases from contaminated bottom sediments, industrial and municipal sources of pollution, and nonpoint sources of pollution, such as agricultural and urban runoff, atmospheric deposition, and contaminated groundwater. Chemicals of emerging concern, which may pose additional threats, have also been detected such as flame retardants, and pharmaceuticals.

- **Invasive Aquatic and Terrestrial Species.** Many of the more than 180 aquatic non-native species in the Great Lakes have propagated and spread, disrupting the food web and leading to added costs to drinking water treatment and economic impacts to commercial and recreational fishing. Sport fishing in the Great Lakes, which has been valued at \$7 billion annually, could be seriously impacted if Asian Carp, which is currently a threat, or another species, were to invade. Invasive species can be virtually impossible to eradicate and have the potential to spread to the rest of the country through waterways, shipping, trade, and the activities of recreational and resource users. The GLRI is working to develop and enhance implementation of key species-specific (such as Asian carp) “collaboratives” to support rapid responses and to communicate the latest control and management techniques.
- **Nonpoint Source pollution from agricultural and urban runoff.** Water quality near the shore has become degraded, and is evident by harmful algal blooms; thick odorous mats of green algae; outbreaks of avian botulism; and “no-swim” advisories. Causes include: excessive amounts of phosphorous and other nutrients running off from urban and agricultural areas; high concentrations of bacteria and other pathogens; and building and development in shoreline areas. Impacts include increased costs of drinking water treatment and limitations on recreational uses.
- **Reduced Habitat for Fish and Wildlife.** Current habitats do not meet the growth and reproductive needs of fish and wildlife. Habitat and species have been impacted by development, competition from invasive species, the alteration of natural lake level fluctuations and flows from dams and other control structures, toxic compounds, poor land management practices, and nonpoint sources of pollution. These impacts have led to loss of biodiversity and poorly functioning ecosystems, with impacts to commercial and recreational fishing.

*Highest GLRI Priorities:* Among the areas above, EPA places a priority on: 1) cleaning up areas of concern; 2) preventing introduction of more invasive species; and 3) reducing phosphorus contributions from agricultural and urban lands that contribute to harmful algal blooms and other water quality impairments.

*GLRI Establishment and Authorization:* In 2004, Executive Order 13340 established the Great Lakes Interagency Task Force and “Promotion of a Regional Collaboration of National Significance for the Great Lakes.” Building on this foundation, in FY 2010 Congress began authorizing the GLRI as part of annual appropriations. In 2016 Congress provided stand-alone authorization in Public Law 114-113. Each year, GLRI funds are appropriated to the EPA. The EPA implements and funds projects itself, but also provides over half of the appropriated GLRI funds to its partner federal agencies to use in implementing their projects or funding others. Federal agencies are now implementing the GLRI through a second Action Plan covering fiscal years 2015-2019.

*Commitment:* The US has various commitments for activities under the bi-national 2012 Great Lakes Water Quality Agreement between the US and Canada.

#### KEY EXTERNAL STAKEHOLDERS:

<input checked="" type="checkbox"/> Congress	<input checked="" type="checkbox"/> Industry	<input checked="" type="checkbox"/> States	<input checked="" type="checkbox"/> Tribes	<input checked="" type="checkbox"/> Media	<input checked="" type="checkbox"/> Other Federal Agency
<input checked="" type="checkbox"/> NGO	<input checked="" type="checkbox"/> Local Governments	<input checked="" type="checkbox"/> Other: <u>Canada, General Public</u>			

*Please describe specific concerns:* GLRI funding supplements, but does not supplant, other funds appropriated to the 16 agencies in the GLRI. The watershed includes two nations, eight U.S. states, two Canadian provinces, and more

than 40 tribes. Stakeholders have concerns about maintaining GLRI resources to address the environmental issues identified in the background section of this paper.

MOVING FORWARD:

- Continue acceleration of Great Lakes protection and restoration at \$300 million annually – the amount directed by Congress in recent years. This amount is necessary to achieve protection and restoration goals in GLRI Action Plan II.
- Continue supplementing Great Lakes protection and restoration at \$250 million annually – the amount proposed in recent President’s budgets.

LEAD OFFICE/REGION: GLNPO/R5

OTHER KEY OFFICES/REGIONS: OW, ORD, R2, R3

# HOUSATONIC RIVER CLEANUP

## MASSACHUSETTS AND CONNECTICUT

### ISSUE SUMMARY:

In October 2016, EPA issued a final RCRA permit modification to General Electric (GE) that specifies a \$613 million cleanup plan for the Housatonic River. The plan proposes a 13-year schedule of activities to address PCB and other contamination to the river in Massachusetts and Connecticut that resulted from the GE facility in Pittsfield.

### UPCOMING MILESTONES:

- **January 31, 2017** – Due date for EPA’s responses to the Environmental Appeals Board (EAB) regarding the five Petitions for Review received regarding the Agency’s final permit decision.
- Additional milestones dependent on appeal status and/or direction provided by EAB.

### BACKGROUND:

The comprehensive remediation and restoration of the Housatonic River cleanup is being performed pursuant to a Consent Decree entered by the court in 2000. In May 2014, after two years of technical discussions on the remedy approach with GE and the States of Massachusetts and Connecticut, EPA issued a draft RCRA permit modification outlining the proposed cleanup plan. EPA received roughly 2,000 pages of comments from 140 commenters during the four-month public comment period.

After the comment period, EPA notified GE of its intended final decision in September 2015 (as provided by the consent decree). At that time, GE invoked administrative dispute resolution. After informal mediation was unsuccessful, GE initiated the formal dispute resolution process under the consent decree. GE’s formal dispute included 18 separate issues covering the cleanup plan’s full scope and three key issues: disposal location, extent of remediation in Woods Pond, and concern about the open-ended nature of some of EPA’s permit provisions.

On October 13, 2016, the dispute resolution official as designated under the consent decree, EPA Regional Counsel Carl Dierker, issued a Final Administrative Decision regarding the dispute, upholding EPA’s position, clearing the way to finalize the permit. The plan, memorialized in the October 20, 2016 final permit modification, includes the following components:

- Removing and capping PCB-contaminated sediment in some reaches in the river,
- Monitoring natural recovery in some reaches in the river,
- Removing PCB-contaminated soil from some areas in the 10-year floodplain adjacent to the river, including vernal pools, and restoring affected areas,
- Stabilizing PCB-contaminated erodible river banks that are a source of PCBs that could be transported downstream, focusing on the use of bioengineering techniques in restoring any disturbed banks,
- Transporting and disposing of all excavated contaminated soil and sediment off-site at existing licensed facilities approved to receive such soil and sediment,



- Placing restrictions (Institutional Controls) on eating fish, waterfowl, and other biota where PCB tissue concentrations pose an unacceptable risk unless/until such consumption advisories are no longer needed, as well as restricting other activities that could potentially expose remaining contamination,
- Using adaptive management techniques and establishing procedures to address PCB contamination associated with future work,
- Maintaining remedy components and monitoring over the long-term to assess the effectiveness of the cleanup and recovery of the river and floodplain,
- Establishing mechanisms for additional response actions if land uses change (e.g. dam removal, changes in floodplain land use) and,
- Conducting periodic reviews following the cleanup to evaluate the effectiveness and adequacy of the cleanup in protecting human health and the environment.

By November 23, 2016, the following five parties had appealed EPA's permit decision to the EPA Environmental Appeals Board: General Electric Co.; Housatonic River Initiative, an environmental group and recipient of Technical Assistance Grant funding for the site; Jeff Cook, local attorney living near the Rest of River; Berkshire Environmental Action Team, local environmental group; and Housatonic Rest of River Municipal Committee, comprised of towns of Lee, Lenox, Great Barrington, Sheffield and Stockbridge, MA.

The due date for EPA's responses to the five parties is 1/31/17. Following EPA's responses, the petitioners have the opportunity to reply to the filing. Further deadlines are up to the EAB. Once all appeals (both EAB and U.S. First Circuit Court of Appeals) are completed, GE is obligated under the Consent Decree to design, construct, and maintain the selected remedy.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☐ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☒ Other (name of stakeholder) six Berkshire County (MA) municipalities

There has been substantial public interest in this process from a wide range of stakeholders, including two states. Massachusetts concurred on EPA's permit decision. Connecticut has expressed conditional support, indicating anything that weakens the remedy could lead to their opposition. GE, communities, and environmental groups all oppose the cleanup plan for various reasons.

#### MOVING FORWARD:

The due date for our responses is 1/31/17. Following our response, the petitioners have the opportunity to reply to our filings. Further deadlines are up to the EAB. Once all appeals (both EAB and U.S. First Circuit Court of Appeals) are completed, GE is obligated under the Consent Decree to design, construct, and maintain the selected remedy.

The EAB process regulations provide for a "stay" from performance any contested conditions in the Permit. Consequently, contemporaneous with the petition/response process, EPA and GE have been identifying the uncontested conditions that must go forward. On January 9, 2017, the Region notified GE of those conditions, which will become effective for performance on February 8, 2017. From that date, GE is to prepare a schedule for submittal of work plans for the uncontested permit conditions.



(b) (5)

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LEAD OFFICE/REGION: REGION 1

OTHER KEY OFFICES/REGIONS: OLEM

# HUDSON RIVER PCB CLEANUP

## ISSUE SUMMARY:

In 1984, 200 miles of the Hudson River, between Hudson Falls and the Battery in New York City, was placed on the EPA's National Priorities List (NPL) due to PCB discharges from General Electric (GE) manufacturing plants. An EPA-selected remedy dredging project began in 2009. After the dredging project's completion in 2015, EPA received letters from a U.S. senator, other elected officials, federal and state agencies, and other external stakeholders questioning the adequacy of the GE-conducted cleanup of polychlorinated biphenyls (PCB)-contaminated sediment in the Upper Hudson River.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

## BACKGROUND:

For a 30-year period, ending in 1977, two GE capacitor manufacturing plants in Fort Edward and Hudson Falls, NY, discharged an estimated 1.3 million pounds of PCBs into the Hudson River.

In 1984, a site composed of 200 miles of the river, between Hudson Falls and the Battery in New York City, was placed on the EPA's NPL; EPA finalized its Record of Decision for the dredging-based cleanup in 2002.

The EPA-selected remedial project began in 2009. It targeted 2.65 million cubic yards of PCB-contaminated sediment from the 40-mile stretch of river between Fort Edward and Troy, NY. A total of 2.75 million cubic yards of contaminated sediment and 310,000 pounds of PCBs were removed.

GE completed decommissioning of the sediment processing plant at the end of December 2016. GE no longer occupies the plant site and the properties have been transferred back to the original owners for future economic development opportunities.

GE performed the dredging work, and the EPA oversaw their work. According to GE, the company has spent over \$1.7 billion on the cleanup project. In October 2015, EPA publicly stated that GE had successfully completed the remediation project's dredging portion.

The dredging created up to 500 jobs annually at its peak. About 280 area contractors, subcontractors, vendors and suppliers provided goods or services related to the project.

Under an October 2014 agreement with EPA, GE will investigate the PCB contamination in the floodplains along a 40-mile stretch of the Hudson River from Hudson Falls to Troy, NY, and will develop cleanup options to address those areas.

#### KEY EXTERNAL STAKEHOLDERS:

☐ Congress      ☒ Industry      ☒ States ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Communities      ☐ Other (name of stakeholder) \_\_\_\_\_

The stakeholders listed below have questioned the adequacy of the remedy selected in EPA's 2002 Record of Decision. Some of them have called for an increase of about 30 percent in the acreage of the river to be dredged, asserting that EPA's remedial action objectives for the river will not otherwise be met. EPA disagrees with much of the technical analysis that has been offered to support these stakeholders' concerns, as detailed in a March 2016 Agency white paper. (b) (5)

- Senator Kirsten Gillibrand, NY
- Representative Chris Gibson, 19<sup>th</sup> District, New York
- Federal trustees for Natural Resources, including National Oceanic and Atmospheric Administration and U.S. Fish and Wildlife Service
- Basil Seggos, Commissioner, New York State Department of Environmental Conservation and Designated Trustee for Natural Resources for the State of New York
- New York State Office of the Attorney General
- Environmental organizations (Scenic Hudson, Riverkeeper, Natural Resources Defense Council, etc.)

#### MOVING FORWARD:

- (b) (5)

(b) (5)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

LEAD OFFICE/REGION: REGION 2

OTHER KEY OFFICES/REGIONS: OLEM, OECA

# HYDRAULIC FRACTURING

## ISSUE SUMMARY:

Hydraulic fracturing combined with directional drilling has enabled rapid growth in US oil and gas production during the past decade. The process has been linked to a variety of environmental impacts, including drinking water and surface water contamination and air pollution.

## BACKGROUND:

Hydraulic fracturing is a stimulation technique used to increase oil and gas production. It involves the underground injection of fluids under pressures great enough to fracture the oil or gas producing formations. The fluid generally consists of water, chemicals, and proppant (commonly sand). During the period 1947 to 2010, approximately 1 million wells were hydraulically fractured with about one third of these fractured between 2000 and 2013/2014. From about 2011 to 2014, about 25,000 to 30,000 wells were fractured each year. Approximately 20,000 wells were hydraulically fractured in 2015.

(b) (5)



As part of the FY2010 budget, Congress urged the EPA to study the relationship between hydraulic fracturing for oil and gas and drinking water in the United States. EPA's study set out to assess the potential for activities in the hydraulic fracturing water cycle to impact the quality and/or quantity of drinking water resources and to identify factors that affect the frequency or severity of those impacts. The hydraulic fracturing water cycle describes the use of water in hydraulic fracturing from water withdrawals to make hydraulic fracturing fluids, through the mixing and injection of hydraulic fracturing fluids in oil and gas production wells, to the collection and disposal or reuse of produced water. EPA's hydraulic fracturing drinking water study produced 13 peer reviewed EPA technical report and 14 peer reviewed journal articles. The study also resulted in the development a state-of-the science assessment report.

EPA's assessment report demonstrated that activities in the hydraulic fracturing water cycle can impact drinking water resources under some circumstances. Impacts can range in frequency and severity, depending on the combination of hydraulic fracturing water cycle activities and local- or regional-scale factors. The following combination of activities and factors are more likely than others to result in more frequent or more severe impacts: water withdrawals for hydraulic fracturing in times or areas of low water availability, particularly in areas with limited or declining groundwater resources; spills during the management of hydraulic fracturing fluids and chemicals or produced water that result in large volumes or high concentrations of chemicals reaching groundwater resources; injection of hydraulic fracturing fluids into wells with inadequate mechanical integrity, allowing gases or liquids to move to groundwater resources; injection of hydraulic fracturing fluids directly into groundwater resources; discharge of inadequately treated hydraulic fracturing wastewater to surface water

resources; and disposal or storage of hydraulic fracturing wastewater in unlined pits, resulting in contamination of groundwater resources.

The above conclusions are based on cases of identified impacts and other data, information and analyses. Cases of impacts were identified for all stages of the hydraulic fracturing water cycle. Identified impacts generally occurred near hydraulically fractured oil and gas production wells and ranged in severity, from temporary changes in water quality to contamination that made private drinking water wells unusable.

The available data and information allowed EPA to qualitatively describe factors that affect the frequency or severity of impacts at the local level. (b) (5)

EPA's analysis of the FracFocus 1.0 database showed that more than 70% of the chemical disclosures contained at least one chemical claimed as confidential business information (CBI) and 11% of all chemicals were claimed as CBI. Responding to a petition under TSCA, in May, 2014, EPA published an Advance Notice of Proposed Rulemaking (ANPRM) asking the public how EPA should gather more information from industry on the identity and health effects of fracturing chemicals. EPA received more than 250,000 comments on the ANPRM. The ANPRM has not been finalized.

Following fracturing, water is associated with the oil and gas liberated from the formation. This "produced water" continues to flow throughout the life of the well. Initially, it's chemical composition reflects that of the injected hydraulic fracturing fluid. Over time, the chemical composition of the produced water reflects that of the formation. Most produced water is disposed by injecting it into underground (UIC) wells. These wells are subject to regulation under the Safe Drinking Water Act (SDWA) UIC program. (Under an amendment to the SDWA, the hydraulic fracturing process itself is not subject to regulation under the UIC program except in cases when diesel fuel is used in fracturing fluid. In 2014, EPA issued diesel fracturing permitting guidance.) UIC injection of produced water has been linked to earthquakes. Where UIC injection wells are not readily available (for example in Pennsylvania), produced water is managed through reuse in new hydraulic fracturing jobs, treatment using centralized waste treatment (CWT) facilities, and impoundments. EPA is conducting a study to assess whether revised effluent guidelines and standards for CWTs that accept this wastewater would be appropriate. This study was announced in the Effluent Guidelines Program Plan that is required by Clean Water Act section 304(m). (b) (5)

Following incidents in Pennsylvania when wastewater passed through publicly-owned treatment works (POTWs) to surface water, in June 2016, EPA established additional standards prohibiting "unconventional" wells from discharging to POTWs. In September, 2016, EPA issued a rule that extended the implementation deadline for three years for certain facilities subject to the June 2016 final rule.

EPA generally has primacy for UIC wells on tribal lands. The SDWA allows for states to obtain EPA approval to exercise primary authority, or "primacy," to implement and enforce the UIC program. In most oil- and gas-producing areas, states have primacy over oil and gas-related UIC wells (known as "Class II" UIC wells), which are typically overseen by state oil and gas regulators rather than environmental agencies. Enforcement at both the state and federal level have been criticized by, among others, the Government Accountability Office, which has found that EPA has failed to conduct rulemakings to codify changes in state UIC program regulations, collect information, and allocate staff needed to oversee and support state efforts. See GAO reports at <http://www.gao.gov/products/GAO-14-555> and <http://www.gao.gov/products/GAO-16-281>.

Oil and gas production, with or without the assistance of hydraulic fracturing, emits volatile organic compounds that cause ozone and are associated with adverse health effects. It also emits methane, a powerful greenhouse gas. These impacts are covered in the [oil and gas summary](#).

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☒ Industry    ☒ States    ☒ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☒ Local Government    ☒ Other: Rural, frequently disadvantaged populations

(b) (5)

## MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OW/REGION 8

OTHER KEY OFFICES/REGIONS: ORD, OECA, OCSP, REGIONS 3,6,9

# IMPROVING EPA'S BUSINESS PROCESSES

## WHAT IS LEAN?

Lean is a set of principles and methods focused on identifying and eliminating non-value added activity (waste), which ultimately equates to saving time and money. For decades, industry, in particular manufacturing, has used Lean to improve the efficiency of processes, enhance project management, deploy new technologies, and focus on mission critical work. In applying Lean practices, systematic evidence informs decision-making and continuous process improvement efforts. Rather than relying on a large team of outside experts, Lean starts with the career employees and other key stakeholders who know the most about their work and how it might be improved to realize efficiencies.

States began efforts to apply Lean to government processes starting in the early 2000s. As of summer of 2016, over 40 states reported having used Lean practices or activities to improve the pace and quality of their work. Many federal agencies, including the Departments of Defense, Energy, Health and Human Services, Housing and Urban Development, and Treasury, along with the Office of Personnel Management and General Services Administration, have embraced Lean practices. As described by Misael Cabrera, Director of the Arizona Department of Environmental Quality, Lean helps to provide “government at the speed of business.”

Beginning with a focused deployment of Lean in 2013, EPA has eliminated waste from over 175 processes, reducing the time those processes take by an average of 47 percent. Thousands of EPA employees have had a hand in improving how the agency works by participating in Lean events. Through Lean, we are able to lead change and nourish a culture of continuous improvement at EPA. We have relied on widespread support from states, senior leaders, effective communication of successes to the entire agency, and engagement of a network of staff members and managers willing to lead change in their programs.

## HOW DOES LEAN HELP EPA, STATES, AND INDUSTRY?

EPA and state teams are increasingly working together to improve process outcomes, increase accuracy and transparency, and reduce rework by using Lean concepts and tools. More efficient processes in EPA and the states enable more timely environmental improvements and increase certainty for the regulated community. The demonstrated benefits of Lean government include elimination of non-value added activities, focus of finite resources on higher value activities, and better environmental results. With Lean, EPA has delivered significant savings to states and industries through reduced paperwork, more efficient processing, and quicker decision-making. For example, the time associated with numerous licensing and permitting processes has been reduced by half or more. Many of these successes are described on page 2 of this document.



## RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) FACILITIES INVESTIGATION REMEDY SELECTION TRACK (FIRST) SUCCESS STORY

Before contaminated industrial sites can be cleaned up and redeveloped, EPA must complete the feasibility investigation and remedy selection processes, which the RCRA FIRST approach through Lean is making far more efficient to save taxpayer dollars, reduce risks sooner, and expedite economic development. EPA held two Lean events in which regional, headquarters, state and industry representatives mapped and analyzed existing process steps. The two key root causes of delays in the old processes included: 1) no common understanding by all stakeholders upfront on site clean up objectives; and 2) lack of an effective means to elevate and resolve clean up issues.

EPA then developed a new approach to the entire process, which when implemented will:

- reduce the planning and investigation phase by an estimated 49%, (10 years to 5.1 years) and
- reduce the remedy selection phase by an estimated 75% (6 years to between 1-2 years).

### WHAT SUCCESS HAS EPA ACHIEVED THROUGH LEAN?

#### *State Related Projects*

- **Clean Air Act State Implementation Plans (SIPs)**
  - Reduction of 29-56% in the time to review and approve SIPs by eliminating steps and clarifying expectations for the participants.
- **Massachusetts Hazardous Waste Facility Licenses**
  - Reduction of 53% in the time to renew operating licenses for treatment, storage, and disposal facilities by more efficiently distributing work.
- **Clean Water Act Reporting on Water Quality and Impaired Waters**
  - Expected 50% reduction in the time to review and approve water quality status reports submitted by states every two years by transition from manual to electronic reporting and engaging states earlier in the process.
- **State and Regional EPA Partnership Priorities**
  - Reduction of 25% in the time to develop multi-year partnership agreements between state and regional EPA offices.

#### *Industry Related Projects*

- **PCB Site Cleanup Approvals**
  - Reduction of 20% in the average time to review and approve applications for cleanup of sites contaminated with PCBs by increasing the quality of initial applications and reducing the number of amendments.
- **Oil Spill Prevention**
  - Expected 69% reduction in average time to review and complete Spill, Prevention, Control, and Countermeasure reports from inspected facilities by removing redundancies and bottlenecks in the process.

#### *EPA Operations Projects*

- **Employee Exit Process**
  - Reduction of 56% (from 146 to 82) in the steps in the checkout process for employees leaving the agency, by consolidating required signatures, reducing required in-person visits, and developing better instructions.
- **Closure of Grants**
  - Reduction of 40% in the number of process steps and 10% reduction (from 177 to 159 days) in the time to certify completion of technical work under a grant or cooperative agreement.

WHAT FUTURE OPPORTUNITIES EXIST FOR LEAN IN FY 17?

1. (b) (5) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

# INJECTION-INDUCED EARTHQUAKES

## OIL AND GAS PRODUCTION

### ISSUE SUMMARY:

Injection of wastewater generated from oil and gas production into underground wells has been linked to an increase in earthquake activity in parts of the country. Since 2000, this increase has been in areas where earthquakes had not occurred before – Arkansas, Colorado, Kansas, Ohio, Oklahoma and Texas – and where there's been an increase in oil and gas production. This has added to public opposition to both oil and gas development and new underground injection control (UIC) wells. Recently, on **November 2, 2016**, a 4.5 magnitude earthquake struck the northern part of the state of Oklahoma.

### BACKGROUND:

Since 2000, small to moderate (up to magnitude 5.8) earthquakes have become much more frequent in the U.S. The most serious of these earthquakes and earthquake clusters have occurred in Arkansas, Colorado, Kansas, Ohio, Oklahoma and Texas. In many cases, these earthquakes are occurring in locations where there had not been earthquakes in the past, while in others their frequency has increased from a handful to hundreds per year. The vast majority have been linked to the injection of “produced water” into nearby Class II UIC wells.

During the past decade, the use of directional drilling with hydraulic fracturing has led to a significant increase in oil and gas production in these areas. The water produced during the process is usually contaminated and must be disposed of, often through injection into Class II UIC wells. This practice is currently most prevalent in Kansas, Oklahoma and Texas, where oil and gas regulators are aware of the issues and are moving to force changes in UIC practices in a deliberate manner.

EPA has direct authority for the UIC program on the Osage Mineral Reserve in Oklahoma, and has instituted voluntary restrictions on Arbuckle Disposal Wells in EPA's part of the control area. These restrictions are substantively the same as Oklahoma's requirements on similar wells in its part of the control area. Osage tribal authorities are concerned that seismic activity will unfairly lead to restrictions on oil and gas production there.

EPA, in particular Region 6, is working closely with individual states affected by earthquakes, with associations of state regulators, with industry, and with the U.S. Geological Survey (USGS) to understand how induced earthquakes are caused and how they can be prevented. EPA has participated in efforts to develop tools for regulators to use in reducing induced seismicity. In 2015, EPA's UIC National Technical Workgroup finalized a comprehensive, scientific study of induced seismicity: *Minimizing and Managing Potential Impacts of Injection-Induced Seismicity from Class II Disposal Wells: Practical Approaches*.

Some state regulators now are requiring well operators to submit more detailed geologic data with their permit applications and are denying permits or including restrictions in permits for wells near fault lines. These restrictions often limit the pressure and the volume of waste injected into some wells. States are also closing existing wells that have been linked to earthquakes and restricting injection volumes and pressures in wells located near recent seismic activity.

Oklahoma, which experienced a magnitude 5.8 earthquake in **September 2016**, and another of magnitude 4.5 in **November 2016**, has undertaken actions in response to increases in seismic activity, but extensive injection into the Arbuckle geologic formation continues to cause instability.

**Regulations:** Regulatory authority for Class II UIC wells is complex. Under the Safe Drinking Water Act (SDWA), EPA regulations govern well permitting procedures and requirements in states where the UIC program is directly administered by EPA. Where EPA approves a state's authority to implement and enforce the Class II UIC program (known as "primacy") under SDWA Section 1422, that state implements the program under its own laws and regulations that EPA has approved as meeting EPA's regulatory requirements. Under SDWA Section 1425, a state can obtain primacy for the Class II UIC program by demonstrating to EPA that their program is "effective" in protecting underground sources of drinking water. Therefore, unlike states with primacy obtained under Section 1422, states with primacy obtained through Section 1425 are not required to demonstrate that their program meets the requirements specified in EPA's Class II UIC regulations. States with primacy under Section 1425 include most of the important oil and gas producing states: Texas, North Dakota, California, Oklahoma, Colorado, Louisiana, Arkansas, and Mississippi, among others.

(b) (5)

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress     
 ☒ Industry     
 ☒ States     
 ☒ Tribes     
 ☒ Media     
 ☒ Other Federal Agency  
☒ NGO     
☐ Local Governments     
☐ Other (name of stakeholder) \_\_\_\_\_

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: REGION 6

OTHER KEY OFFICES/REGIONS: OW

# INTEGRATED RISK INFORMATION SYSTEM (IRIS)

## ISSUE SUMMARY:

The Integrated Risk Information System (IRIS) is the international gold standard for characterizing the health hazards of environmental chemicals and is the gold standard for toxicity values that provide a critical starting point for public health decisions at EPA. The IRIS program also informs public health decisions at the local and state level and internationally and will play a role in EPA's implementation of new TSCA. The IRIS program has evaluated such important chemicals as dioxin and trichloroethylene among the hundreds of assessments conducted to date and is currently evaluating chemicals such as arsenic, chromium, and formaldehyde. EPA and outside regulatory bodies rely on IRIS assessments to set safe levels of exposure, establish clean up levels at Superfund sites, or make other public health or regulatory decisions. As such, it is frequently the center of debate by the regulated community as to whether assessments have captured the right science and appropriately evaluated all the evidence. In response to reviews by the National Academy of Sciences (NAS), EPA has taken numerous steps to ensure the scientific reliability of IRIS assessments, including intra and inter-Agency reviews, public comment periods, and rigorous external review by a standing subcommittee of our SAB. All these steps consume time, and as a result, the productivity of the program has been criticized, including by the Government Accountability Office (GAO). EPA continues to examine the IRIS process to increase its efficiency and therefore deliver more assessments in a timely manner. We remain committed to continuing development of IRIS assessments as we work through the issues.

## UPCOMING MILESTONES:

- (b) (5)

## BACKGROUND:

IRIS plays an integral role in helping EPA accomplish its mission through the development of human health assessments that evaluate potential health effects that may result from exposure to environmental contaminants. In providing the scientific and technical basis for many activities within EPA, the IRIS Program is essential for protecting public health. EPA remains committed to taking actions that will continue to strengthen the IRIS Program. These actions are also responsive to open GAO recommendations related to timeliness and program management. In 2015, the GAO High Risk Report found that, with respect to the IRIS Program, EPA had met the criterion for Leadership Commitment, partially met criteria for implementation of an Action Plan and Monitoring, but had not met criteria for Capacity and Demonstrated Progress. EPA's leadership commitment to improvements was acknowledged by the GAO and by the NAS in their 2014 review of the IRIS process. The progress that the IRIS Program has made is substantive and transformative. Assessments have been extensively restructured by incorporating systematic review methods. New disciplinary workgroups and committees have been established to increase productivity and capacity. The program's continued commitment to excellence has made a difference and been noticed by authoritative bodies like the NAS and Science Advisory Board Chemical Assessment Advisory Committee, by stakeholders, and the public. In FY16, IRIS released three assessments for public comment, one to peer review, and posted two final assessments.

KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☐ States      ☐ Tribes      ☒ Media      ☐ Other Federal Agency  
☒ NGO      ☐ Other (name of stakeholder) \_\_\_\_\_

The IRIS Program is the focus of an ongoing document request by the House Science, Space and Technology Committee. Senate Environment and Public Works (staff) has expressed interest in program activities over the last several years. Industry stakeholders, notably the American Chemistry Council, have raised concerns about the progress of IRIS' implementation of NAS recommendations. (b) (5)

MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION:    ORD

OTHER KEY OFFICES/REGIONS:

# Multilateral, and Regional Environmental<sup>1</sup> Agreements of Relevance to EPA

Name	Year – Location of Signature / Adoption	Description	Has it Entered into Force?	Is the US a Party?
<i>Multilateral Fresh Water, Marine, Ships</i>				
London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter	1972 – London, Great Britain	Management of ocean dumping of acceptable materials from ships or aircraft. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. Domestic implementation under the Marine Protection, Research, and Sanctuaries Act (MPRSA), also referred to as the Ocean Dumping Act.	Y	Y
Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (London Protocol)	1996 – London, Great Britain	Advanced control of ocean dumping activities, lists eight materials that can be considered for ocean dumping, and incorporates waste assessment guidelines developed to aid in managing ocean dumping.	Y	N
International Convention for the Prevention of Pollution from Ships (MARPOL) There are six annexes to MARPOL, covering pollution from ships such as oil, garbage and sewage; the U.S. is Party all but Annex IV.	1973/78 – London, Great Britain	The MARPOL Convention is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. It is a combination of two treaties adopted in 1973 and 1978 respectively and updated by amendments through the years. Domestic implementation under the Act to Prevent Pollution from Ships (APPS) and other statutes as described below.	Y	Y
International Convention on the Control of Harmful Anti-Fouling Systems on Ships	2001 – London, Great Britain	Specifies a global ban on organotin hull paints and establishes a process for evaluating other harmful antifouling systems.	Y	Y

1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented



Name	Year – Location of Signature / Adoption	Description	Has it in Entered into Force?	Is the US a Party?
Ramsar Convention on Wetlands of International Importance	1971 – Ramsar, Iran	The Convention provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.	Y	Y
International Convention for the Control and Management of Ships' Ballast Water and Sediments	2004 – London, Great Britain	Parties are to prevent, minimize, and ultimately eliminate the transfer of harmful aquatic organisms through the control and management of ships' ballast water and sediments. Treaty will enter into force in September 2017.	N	N
The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships	2009 – Hong Kong	The Convention aims to ensure that ships, when being recycled after reaching the end of their operational lives, do not pose any unnecessary risks to human health, safety and to the	N	N
<i>Multilateral Air Pollution, Atmospheric Effects</i>				
Convention on Long-Range Transboundary Air Pollution (LRTAP) Protocols address sulphur, nitrogen oxides, volatile organic compounds, heavy metals, persistent organic pollutants, ground-level ozone.	1979 – Geneva, Switzerland	Over the years, LRTAP has served as a bridge between different political systems and as a factor of stability in years of political change. It has substantially contributed to the development of international environmental law and has created the essential framework for controlling and reducing the damage to human health and the environment caused by transboundary air pollution.	Y	Y
Convention on International Civil Aviation (Chicago Convention)	1944 – Chicago	The International Civil Aviation Organization's (ICAO's) Committee on Aviation Environmental Protection (CAEP) develops international air pollution emission standards, which individual nations later adopt into domestic law to fulfill their obligations under the Chicago Convention. In order to ensure access of their registered aircraft to airspace of other member nations, member nations must adopt domestic standards that	Y	Y

1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented



Name	Year – Location of Signature / Adoption	Description	Has it in Entered into Force?	Is the US a Party?
		are at least as stringent as ICAO's standards. Domestic application under the Clean Air Act.		
Vienna Convention for the Protection of the Ozone Layer	1985 – Vienna, Austria	Calls for Parties to take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party, to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.	Y	Y
Montreal Protocol on Substances that Deplete the Ozone Layer	1987 – Montreal, Canada	Addresses ozone-depleting substances and certain substitutes. Protocol amendments: 1990-London, 1992-Copenhagen, 1997-Montreal, 1999-Beijing, 2016-Kigali Domestic implementation under the Clean Air Act.	Y	Y
Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL) (see full description above)	Adopted in 1997 and entered into force in 2005)	Air pollution from ships is specifically addressed in Annex VI of the MARPOL treaty. Annex VI includes requirements applicable to the manufacture, certification, and operation of vessels and engines, as well as fuel quality used in vessels in the waters of the United States. Domestic implementation under the Clean Air Act.	Y	Y
United Nations Framework Convention on Climate Change (UNFCCC)	1992 – New York	Establishes an overall framework for intergovernmental efforts relating to climate change, with 197 Parties.	Y	Y
Kyoto Protocol (UNFCCC)	1997 – Kyoto, Japan	The Kyoto Protocol is an international agreement linked to the UNFCCC. It Establishes legally-binding emissions targets and timetables for certain developed country Parties to the Protocol.	Y	N
Paris Agreement (UNFCCC)	2015 – Paris, France	Aims to hold global average temperature rise to well below 2 °C above pre-industrial levels by reducing greenhouse gas emissions. It provides for increased international cooperation	Y	Y

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1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented
-

Name	Year – Location of Signature / Adoption	Description	Has it Entered into Force?	Is the US a Party?
		on climate change adaptation and responsible, climate-resilient development.		
<i>Multilateral Hazardous Waste, Chemicals</i>				
Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal (Basel Convention)	1989 – Basel, Switzerland	Regulates the transboundary movement of hazardous waste including through a prior informed consent regime for trade in hazardous waste. Key issues of particular concern for the US currently are the Ban Amendment, electronic waste, and certain proposed revisions to Annexes. It also seeks to promote the environmentally sound management of hazardous waste.	Y	N
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	1998 – Rotterdam, Netherlands	This Convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labeling, include directions on safe handling, and inform purchasers of any known restrictions or bans. It establishes a prior informed consent regime for trade in certain pesticides and industrial chemicals.	Y	N
Stockholm Convention on Persistent Organic Pollutants	2001 – Stockholm, Sweden	Aims to eliminate or restrict both the production and use of certain persistent organic pollutants.	Y	N
Organization for Economic Cooperation and Development Council Decision on the Control of Wastes Destined for Recovery Operations	2001 – Vienna, Austria	Establishes procedural and substantive controls for the import and export of hazardous waste for recovery between Organization for Economic Cooperation and Development member nations.	Y	Y
Minamata Convention on Mercury	2013 – Minamata, Japan	This is a comprehensive treaty which aims to reduce or eliminate the use and release of mercury from industrial and manufacturing processes and also includes provisions for capacity building. Among the areas covered by the Minamata	N	Y

1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented

Name	Year – Location of Signature / Adoption	Description	Has it in Entered into Force?	Is the US a Party?
		Convention are mercury air pollution, mercury in products and processes, mercury use in artisanal and small scale gold mining, and safe storage of excess mercury.		
<i>North America and Other Regional</i>				
North American Agreement on Environmental Cooperation (NAAEC)	1993	The NAAEC was signed by Canada, Mexico and the United States and entered into force and effect on January 1, 1994. The Agreement creates a framework to better conserve, protect and enhance the environment in North America through cooperation and effective enforcement of environmental laws.	Y	Y
Boundary Waters Treaty (treaty between the U.S. and Great Britain relating to boundary waters, and questions arising between the US and Canada)	1909	This treaty provides the principles and mechanisms to help resolve current disputes and to prevent future ones, primarily those concerning water quantity and water quality along the boundary between Canada and the United States.	Y	Y
United States – Canada Air Quality Agreement	1991; Ozone Annex 2000	The bilateral U.S.-Canada Air Quality Agreement addresses transboundary air pollution – air pollution emitted in one location that impacts air quality in another jurisdiction often far from its source – and provides a forum for scientific cooperation on air quality issues of concern to both Parties. An Ozone Annex was added to the Agreement in 2000 to address transboundary smog issues.	Y	Y
Agreement between the United States of America and Canada on Great Lakes Water Quality, 2012	2012 – Washington, D.C.	Facilitates United States and Canadian action on threats to Great Lakes water quality and includes strengthened measures to anticipate and prevent ecological harm. It includes provisions to address aquatic invasive species, habit degradation and the effects of climate change. It also supports continued work on existing threats to public health and the	Y	Y

1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented

Name	Year – Location of Signature / Adoption	Description	Has it in Entered into Force?	Is the US a Party?
		environment in the Great Lakes Basin such as harmful algae, toxic chemicals, and discharges from vessels. Domestic implementation under Clean Water Act section 118.		
1889 Border Convention, 1906 Boundary Water Convention, and 1944 Water Treaty between the United States and Mexico	1906	Established the International Boundary and Water Commission with a mission to provide binational solutions to issues that arise during the application of United States-Mexico treaties regarding boundary demarcation, national ownership of waters, sanitation, water quality, and flood control in the U.S.-Mexico border region. Implementation, in part, under the Clean Water Act.	Y	Y
1983 Agreement between the United States and Mexico on the Protection and Improvement of the Environment in the Border Area (La Paz Agreement) (There are several annexes on specific environmental issues including water pollution, transboundary movement of hazardous waste, emergency response, and air pollution)	1983 – La Paz, Baja California, Mexico	Established a mechanism for environmental cooperation between the U.S. and Mexico to protect and improve the environment in the 100 kilometer area along either side of the joint land and maritime border.	Y	Y
U.S.-Mexico Agreement Establishing a Border Environment Cooperation Commission and a North American Development Bank	1993	This Agreement established two institutions to design, approve and provide funding for critical environmental infrastructure projects related to wastewater treatment, safe drinking water, and solid and hazardous waste, in order to protect and improve public health and the environment in the border region. It was significantly amended in the early 2000's to include other types of infrastructure projects, some of which are not directly related to environmental protection.	Y	Y

1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented



Name	Year – Location of Signature / Adoption	Description	Has it in Entered into Force?	Is the US a Party?
Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Area (Cartagena Convention)	1983 – Cartagena, Columbia	Its objective is promotion of regional cooperation for the protection and sustainable development of the Wider Caribbean Region to prevent, control, and reduce pollution. Among the types of pollution covered are pollution from ships, pollution caused by dumping, pollution from land-based sources, pollution from seabed exploration and exploitation, and pollution from atmospheric sources under Party jurisdiction. A more specific “Land-Based Sources Protocol” was adopted in 1994. Domestic implementation under the Clean Water Act (and other statutes administered by other agencies).	Y	Y
Protocol on Environmental Protection to the Antarctic Treaty of 1959	1959	As required by the Antarctic Science, Conservation and Tourism Act of 1996, EPA has issued regulations that provide for the environmental impact assessment of nongovernmental activities (including tourism) in Antarctica, and that coordinate the information review of environmental impact assessments received from other Parties. These activities are called for by this Protocol.	Y	Y
Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic	2013	This is the second legally-binding agreement negotiated under the auspices of the Arctic Council. Its purpose is to strengthen cooperation, coordination and mutual assistance among the Parties on oil pollution preparedness and response in the Arctic.	Y	Y
United States-Central America-Dominican Republic Environmental Cooperation Agreement	2005	This agreement provides a framework for cooperation among the United States, certain Central American countries, and the Dominican Republic on environmental protection and enforcement of environmental law.	Y	Y
Agreement Between the Government of Canada and the	1986	The Agreement sets out specific conditions for the transboundary movement of hazardous wastes and other	Y	Y

1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented

<b>Name</b>	<b>Year – Location of Signature / Adoption</b>	<b>Description</b>	<b>Has it in Entered into Force?</b>	<b>Is the US a Party?</b>
Government of the United States of America Concerning the Transboundary Movement of Hazardous Waste and Other Waste		wastes between the two countries, and ensures that transboundary movements are handled safely and are exported and imported only to facilities that are authorized by the importing country.		
Agreement of Cooperation Between the United States of America and the United Mexican States Regarding the Transboundary Shipments of Hazardous Wastes and Hazardous Substances (Annex III to the La Paz Agreement discussed above)	1986 – Washington, D.C.	The Agreement sets out specific conditions for the transboundary movement hazardous wastes and hazardous substances between the two countries, and ensures that transboundary movements are handled safely and are exported and imported only to facilities that are authorized by the importing country.	<b>Y</b>	<b>Y</b>
Agreement Between the Government of the United States of America and the Government of the Republic of the Philippines Concerning the Transboundary Movement of Hazardous Wastes from the Philippines to the United States	2001 – Manila, Philippines	The Agreement sets out specific conditions for the export of hazardous wastes from the Philippines to the United States.	<b>Y</b>	<b>Y</b>
Agreement Between the Government of the United States of America and the Government of Malaysia Concerning the Transboundary Movement of Hazardous Wastes from Malaysia to the United States	1995 – Kuala Lumpur, Malaysia	The Agreement sets out specific conditions for the export of hazardous wastes from Malaysia to the United States.	<b>Y</b>	<b>Y</b>

- 
1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented
-

Name	Year – Location of Signature / Adoption	Description	Has it in Entered into Force?	Is the US a Party?
Agreement Between the Government of the United States of America and the Government of Costa Rica Concerning the Transboundary Movement of Hazardous Wastes from Costa Rica to the United States	1997 – San Jose, Costa Rica	The Agreement sets out specific conditions for the export of hazardous waste from Costa Rica to the United States.		
<i>International Trade and Investment</i>				
World Trade Organization Agreements	1994 – Marrakesh, Morocco	This set of related agreements includes many that are relevant to EPA. Those most relevant to EPA's mission and work include the following: the General Agreement on Tariffs and Trade (GATT), the General Services Agreement, the Sanitary and Phytosanitary Standards (SPS) Agreement, and the Technical Barriers to Trade (TBT) Agreement.	<b>Y</b>	<b>Y</b>
Bilateral and Regional Free Trade Agreements (FTAs)		All of the FTAs that have entered into force and effect for the United States have provisions relevant to EPA. Among the chapters of greatest relevance to EPA are the investment chapter, the SPS chapter, the TBT Chapter, the dispute settlement chapter, the services chapter, the government procurement chapter, and the general exceptions. Many post-1992 FTAs have provisions designed to protect public health and the environment, some of which were statutorily mandated by Congress. This latter set of FTAs includes the following: Australia, Central America-Dominican Republic (CAFTA-	<b>Y</b>	<b>Y</b>

- 
1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented
-

Name	Year – Location of Signature / Adoption	Description	Has it Entered into Force?	Is the US a Party?
		DR), Chile, Colombia, Jordan, Morocco, North America (NAFTA), Panama, Peru, Singapore, and South Korea.		
Bilateral Investment Treaties (BITs)		The U.S. has negotiated many BITs that have entered into force and effect. Many of them have provisions relevant to EPA. For instance, some of the more recent BITs have provisions designed to protect public health and the environment. These include the 2005 BITs with Uruguay and Rwanda. The United States is currently negotiating a BIT with China.	Y	Y
<i>International Financial Institutions</i>				
World Bank Safeguards		In the early 1990's the World Bank developed and approved a series of social and environmental safeguards that apply to certain kinds of projects seeking funding by the Bank. Although these safeguards are not legally-binding on the U.S., they were given impetus by U.S. legislation (the "Pelosi Amendment"). In 2016, revisions to the World Bank safeguards were completed. The World Bank is currently developing guidance documents to establish best practices in implementing the revised safeguards.	N/A	N/A

- 
1. This chart is not comprehensive in that it does not include certain general marine agreements (e.g., the Law of the Sea Convention), defense agreements (e.g., the Chemical Weapons Convention), certain general cooperation agreements, certain memoranda of understanding that are largely aspirational in nature, and certain other agreements that have provisions that are or may be relevant to EPA depending on the circumstances presented
-



# KEWAUNEE COUNTY, WISCONSIN

## (E. COLI IN PRIVATE DRINKING WATER WELLS)

### ISSUE SUMMARY:

In response to long-standing problems with private drinking water wells contaminated with *E. coli*, environmental groups jointly filed a petition in October 2014 requesting EPA exercise its emergency authority under the Safe Drinking Water Act (SDWA) to investigate the source of the contamination, provide clean drinking water to residents, install groundwater-monitoring wells, and investigate whether the State's nutrient management standards and practices are sufficient to protect the drinking water source.

### UPCOMING MILESTONES:

(b) (5)

The acting Regional Administrator contacted the Director of WDNR on January 12, 2017, to continue to discuss ways to address public concerns about drinking water in Kewaunee County. Region 5 plans to meet with petitioners in February 2017. (b) (5)

### BACKGROUND:

In September 2015, in response to the petition, and following discussions with EPA, Wisconsin Department of Natural Resources (WDNR) convened the Groundwater Collaboration Workgroup to address short-term solutions, best management practices/sensitive areas, compliance, and communications. EPA participated in the workgroup.

In June 2016, WDNR released the final report containing the workgroup recommendations, and is funding a two-year study to evaluate the extent of private residential well contamination throughout the County and to identify the source of fecal contamination.

**Details of Study:** Sampling events were completed in November 2015 and July 2016 to determine the extent of well contamination. About 30 percent of the wells tested positive for total coliform, *E. coli*, or nitrates above 10 ppm. Preliminary results of samples collected in April and August 2016 show microorganisms of non-specific sources were present in 60 percent of the tested wells, bovine-specific microorganisms were found in 18 percent of the wells, and human-specific microorganisms were detected in 27 percent of the wells. Some organisms found have the potential to endanger health (salmonella, rotavirus). The next phase of the study will evaluate the source of well contamination and continue into 2017.

EPA is monitoring the implementation of recommendations from the final report. Specifically, EPA is reviewing nutrient management plans of permitted CAFOs in Kewaunee County, reviewing WDNR's CAFO program and

policies, and working with WDNR to address identified deficiencies. Finally, EPA is working with WDNR and other stakeholders to identify potential solutions to provide drinking water to residents with contaminated wells.

In an incident unrelated to the petition, EPA is reviewing state and local government responses related to a private well that became contaminated with manure in late **October 2016**. The incident occurred after a farmer in Kewaunee County improperly spread manure on the ground before it rained. EPA is reviewing state and local government responses to determine whether adequate actions are being taken to protect public health.

**Community Concerns:** Petitioners continue to ask EPA to issue an SDWA emergency order to responsible parties to provide drinking water to affected residents. EPA will continue to gather additional information to determine whether to issue an emergency order under SDWA, as well as continue to meet regularly with the Kewaunee County petitioners to discuss progress and their concerns.

**Alternate Water Sources:** In September 2016, Peninsula Pride Farms, a local group of farm operators, announced the “Water Well” program, which provides bottled water for up to three months and partial funding toward the purchase (50%), installation (100%), and maintenance (first 12 months) of water treatment systems for residents whose wells are contaminated by *E. coli*, regardless of the source. In January 2016, a local school district opened a kiosk at one of its buildings that allows residents to fill jugs with clean drinking water. Petitioners have voiced a preference for more kiosks rather than participation in the “Water Well” program. These programs are consistent with short-term solution recommendations in the final workgroup recommendations.

**Local Area:** Around 4,600 private residential wells exist in Kewaunee County which is, like much of Wisconsin, highly agricultural. Census data indicates 174 dairy farms operate in the county of which 16 are large dairy CAFOs with more than 700 cows. Around 600 county operations, both livestock and cash crop, contain ground available for land application of agricultural wastes which is being applied to 80 percent of the county’s land. The aquifer has a dense and ubiquitous fracture network that lends itself to rapid horizontal and vertical transport of water from the surface to underlying groundwater.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☒ Other: Kewaunee County Petitioners

Congressional and media interest have been high, (b) (5)

#### MOVING FORWARD:

(b) (5)

(b) (5)

LEAD OFFICE/REGION: REGION 5

OTHER KEY OFFICES: OECA / OGC

# LEAD AND COPPER RULE

## (DRINKING WATER)

### ISSUE SUMMARY:

Although implementation of EPA's Lead and Copper Rule (LCR) has resulted in major improvements in public health, the lead crises in Washington, DC, and Flint, MI, and subsequent national attention focused on lead in drinking water underscore significant challenges with implementation of the rule. (b) (5)

### UPCOMING MILESTONES:

- (b) (5)

### BACKGROUND:

Lead and copper enter drinking water mainly from the corrosion of lead- and copper-containing plumbing materials. Lead exposure can result in serious adverse health effects, particularly for young children. In 1991, EPA promulgated the LCR under the Safe Drinking Water Act (SDWA) to protect public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity through corrosion treatment.

Under the SDWA, EPA establishes national primary drinking water regulations which either establish a maximum contaminant level (MCL) or a treatment technique "to prevent known or anticipated adverse effects on the health of persons the extent feasible." The Lead and Copper Rule is a treatment technique rule which requires systems to conduct tap sampling for lead and copper to determine the actions systems must take to reduce exposure to lead and copper. Under the LCR, if lead or copper concentrations exceed a certain level (15 ppb for lead, or 1.3 ppm for copper) in more than 10% of customer taps sampled, the system is required to undertake certain actions. The type of action that is triggered depends upon the size of the system and the actions it has taken previously. Any system that exceeds the action level for lead must also inform the public about steps they should take to protect their health. Some systems may have to replace lead service lines.

EPA authorizes States and Tribes to assume primary enforcement responsibility (primacy) for public drinking water systems if they meet certain requirements. Effective, sustainable oversight of SDWA implementation is an important priority for protecting public health. EPA has committed to increased oversight of SDWA implementation and enforcement in partnership with state and tribal primacy agencies. (b) (5)

On February 29, 2016, the Administrator and Deputy Assistant Administrator for Water sent letters to state governors, state environment or public health commissioners, and tribal governmental leaders outlining specific steps to enhance oversight of LCR implementation. (b) (5)

This review showed that states have adopted EPA

regulations and guidance, but are challenged to implement them fully due to the large number of water systems, the complexity of the LCR provisions, and a lack of technical knowledge and resources.

Over the past year, EPA issued memos and technical recommendations to help primacy agencies and public water systems comply with requirements of the LCR. These included: (1) a memo clarifying recommended tap sampling procedures (February 29, 2016); (2) technical recommendations to help public water systems comply with the corrosion control treatment requirements of the LCR (March 2016); and (3) a memo highlighting the importance of the selection of LCR sample sites and monitoring frequency by public water systems (October 13, 2016).

In October 2016, EPA released a [white paper](#) discussing potential elements under consideration as EPA works to develop proposed revisions to the LCR. The paper highlights key challenges and the complexity of the elements that are under consideration, including lead service line replacement, improving corrosion control treatment requirements, consideration of a health-based benchmark, the potential role of point-of-use filters, clarifications or strengthening of tap sampling requirements, increased transparency, and public education requirements.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☐ Media      ☐ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☒ Other: Affected communities; public health community

(b) (5)

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OW

OTHER KEY OFFICES/REGIONS: REGION 5

# LEAD PUBLIC & COMMERCIAL BUILDINGS RULE

## ISSUE SUMMARY:

EPA was sued on the 2008 Lead Renovation, Repair and Painting (RRP) final rule for, among other things, failing to meet its statutory obligation to address renovations in public and commercial buildings (P&CBs). EPA entered into a settlement agreement that included establishing a timeline for action on renovations in P&CBs.

## UPCOMING MILESTONES:

The deadline for issuing a proposed rule is March 31, 2017. In June 2016, the Agency notified the litigants that the deadline will not be met. EPA is working with the litigants to determine a new deadline for the proposal.

## BACKGROUND:

Section 402(c)(3) of the Toxics Substances Control Act (TSCA) directs EPA to promulgate regulations for renovations in target housing (pre-1978 residential dwellings), public buildings built before 1978 and commercial buildings that create lead-based paint hazards. For renovations that create lead-based paint hazards, TSCA directs EPA to promulgate work practice, training and certification requirements. In 2008, EPA promulgated final regulations applicable to renovations in target housing and child-occupied facilities (a subset of P&CBs). Shortly thereafter, a group of litigants challenged the 2008 RRP rule, in part for EPA's failure to evaluate lead-based paint hazards in P&CBs by the statutory deadline (April 1994). EPA entered into a settlement agreement that, among other things, established a timeline for action on P&CB renovations unless a determination was made that these activities do not create lead-based paint hazards. The settlement has been renegotiated several times since the original agreement.

EPA is conducting a survey of companies that perform renovations on lead-based paint to collect information such as the type and number of activities performed and work practices used. (b) (5)

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress
 ☒ Industry
 ☒ States
 ☒ Tribes
 ☐ Media
 ☒ Other Federal Agency  
☒ NGO
 ☒ Local Government
 ☐ Other: \_\_\_\_\_

(b) (5)

## MOVING FORWARD:

(b) (5)

(b) (5)

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LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS: ORD, OGC, OCHP, OP,  
OECA, OLEM, OAR, Regions



# LEAD

## ISSUE SUMMARY:

Although lead exposure has declined dramatically in the past 40 years because of actions by EPA, other federal agencies and states, some populations continue to experience high lead exposures, particularly those in poorer and older neighborhoods. EPA has statutory authorities for addressing lead exposure from air, soil, water, household dust and old paint and works closely with other federal, state and local partners to continue reducing lead exposure across the population and internationally.

## UPCOMING MILESTONES:

(b) (5)

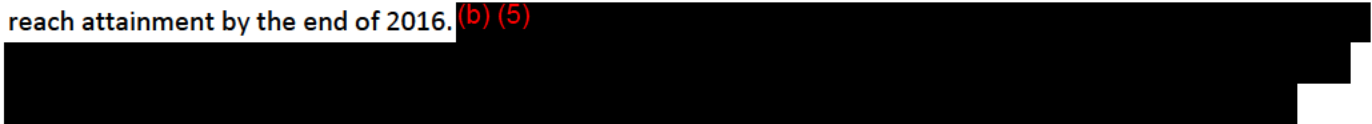
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## BACKGROUND:

Lead exposure, even at low levels, results in harmful impacts to children's neurological development, including effects on intelligence and behavior. Lead exposure is also associated with other harmful effects for children and adults, including neurological, cardiovascular, kidney, developmental and reproductive outcomes. Lead can leach into drinking water through the corrosion of lead-containing pipes, leaded solders, plumbing fixtures and other lead-containing plumbing materials. Lead can pollute air and soil through past industrial releases, the past use of leaded gasoline and paint and current releases from metals industries, leaded aviation gasoline and other sources. Lead can also be found inside homes – on walls of older homes coated with lead-based paint and in everyday consumer products like toys, cosmetics, ceramics, solders and batteries. Exposures to lead from paint, including lead-contaminated dust, is one of the most common causes of lead poisoning.

Blood lead levels have declined by more than 90% since the mid-1970s. Despite the substantial progress made, lead exposure continues to be a problem throughout the U.S. and remains one of the top childhood environmental health problems that impact minority and/or low-income populations.

To protect public health and the environment from lead emitted into the air, EPA has set national ambient air quality standards (NAAQS) for lead. In September 2016, EPA completed the most recent review and concluded that the existing standards are appropriate. Currently 21 areas remain in nonattainment, with nearly all expected to reach attainment by the end of 2016. (b) (5)

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More than 775 sites on the Superfund National Priorities List (NPL) contain lead at levels of concern. When EPA finds lead in soil that exceeds the screening level, it conducts site-specific assessments of potential health risks. Lead may

be present at Superfund sites from various sources, and there are qualified limitations on the Agency's statutory response authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to address some of these sources. When EPA's resources or authorities are limited, EPA coordinates with other authorities and funding sources to employ a multi-pathway approach.

The 2001 Hazard Standards rule, issued under the Toxic Substances Control Act (TSCA), established lead hazard standards in dust and soil for residences and child-occupied facilities. In 2009, without specifying a timetable, EPA granted a petition requesting that the Agency take action to lower the regulatory hazard standard for lead in dust on floors and window sills. On August 24, 2016, Earthjustice and others filed a petition seeking a court order for EPA to issue a proposed rule within 90 days of that order and a final rule within six months.

On June 19, 2015, EPA entered into an amended settlement agreement to propose regulations under TSCA to address any lead-based paint hazards created by disturbing lead-based paint during renovations of public and commercial buildings. The current deadline for issuing a proposed rule is March 31, 2017, but in June 2016, the Agency notified the litigants that EPA will not meet the deadline and is working with the litigants to determine a new deadline for the proposal.

Compliance monitoring and enforcement of the TSCA lead regulations involves coordinated efforts of the Office of Enforcement and Compliance Assurance (OECA), the 10 regional offices, states and tribes. OECA has developed a Compliance Monitoring Strategy, which covers the lead-based paint program, as well as inspection guidance documents and an enforcement response policy.

On October 26, 2016, EPA released the "[Lead and Copper Rule Revision White Paper](#)," which describes the key principles that will guide the development of the revised LCR and outlines the potential elements that EPA is considering in the rulemaking process.

#### EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☒ Other (name of stakeholder) World Health Organization,  
United Nations Environment Program

#### MOVING FORWARD:

EPA is currently planning to issue an updated risk management strategy for soil lead at Superfund sites and Resource Conservation and Recovery Act Corrective Action facilities. (b) (5)

[REDACTED]

[REDACTED]

[REDACTED]

LEAD OFFICE/REGION: OCSPP, OAR, OW, OLEM, OITA

OTHER KEY OFFICES/REGIONS: ORD, OP, OCHP, OEJ, OECA, REGIONS

# LOWER PASSAIC RIVER CLEANUP (NEW JERSEY)

## ISSUE SUMMARY:

In March 2016, EPA selected a remedy for cleaning up the lower 8.3 miles of the Passaic River. At an estimated cost of \$1.38 billion, this remedy is one of the Superfund program's most expensive. The public and elected officials strongly support EPA's selected remedy but a group of potentially responsible parties (PRPs) has been very critical.

## UPCOMING MILESTONES:

- (b) (5)

## BACKGROUND:

The Diamond Alkali Superfund site encompasses the entire 17 miles of the tidal Lower Passaic River (LPR), as well as Newark Bay and the former pesticide factory at 80-120 Lister Avenue in Newark, NJ. The LPR and Newark Bay were contaminated with releases from that factory and other industrial and municipal sources. Contamination dates back to the beginning of the industrial revolution and includes a variety of hazardous substances, such as dioxin, polychlorinated biphenyls (PCBs), mercury, dichloro-diphenyl-trichloroethane (DDT), pesticides, polynuclear aromatic hydrocarbons (PAHs) and heavy metals. EPA added the site to the National Priorities List (NPL) in 1984.

EPA's March 2016 remedy selection focused on the lower 8.3 miles of the LPR because about 90 percent of the contamination is concentrated in that stretch, requiring bank-to-bank remediation.

The Agency has identified over 100 PRPs. Some of the PRPs formed the CPG, and under EPA oversight, the CPG is performing the remedial investigation and feasibility study for the full 17-mile stretch of the LPR.

Prior to EPA's March 2016 remedy selection, the CPG and individual PRPs made frequent information and meeting requests. They wrote to EPA Headquarters and to Congress to criticize the remedy and advocate for a much less comprehensive approach.

The EPA, the State of New Jersey, and other federal agencies have conducted significant community involvement and outreach for the Lower Passaic River. Outreach efforts include regular meetings with the Passaic River Community Advisory Group and frequent engagement with community groups and local and state governmental officials.

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☒ Industry    ☒ States    ☐ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☒ Local Government    ☐ Other (name of stakeholder) \_\_\_\_\_

Congressional Interest: Senators Cory Booker and Robert Menendez; NJ House Delegation, particularly Rodney Frelinghuysen, Bill Pascrell, Albio Sires and Donald Payne, Jr. The NJ Department of Environmental Protection has publicly supported EPA efforts to clean up the Passaic River and formally concurred on the final cleanup plan before EPA finalized the document.

Other Interested Parties: OCC, CPG, NJ DEP, US Army Corps of Engineers, National Oceanic and Atmospheric Administration, U.S. Fish and Wildlife Service, Passaic River Community Advisory Group, Sediment Management Workgroup, Ironbound Community Corporation, Natural Resources Defense Council, NY/NJ Baykeeper, Passaic River Coalition, Sierra Club and various communities located near the Passaic River.

NGOs have expressed concern over the cleanup's slow pace and the need to hold PRPs accountable for cleanup costs; PRPs have expressed concern over the cleanup's high cost and have questioned whether the Region has followed EPA guidance on how sediment sites should be addressed.

U.S. Army Corps of Engineers is also a site stakeholder due to the requisite changes to navigational dredging.

## MOVING FORWARD:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

LEAD OFFICE/REGION: REGION 2

OTHER KEY OFFICES/REGIONS: OLEM, OECA

# METHYLENE CHLORIDE AND NMP (TSCA 6(A) RULE)

## ISSUE SUMMARY:

EPA proposed a rule under the Toxic Substances Control Act (TSCA) section 6(a) to address the unreasonable risks to human health identified from methylene chloride and N-methylpyrrolidone (NMP) in paint and coating removal. This proposed rule, along with the TCE TSCA Section 6(a) rules, are the first actions taken on existing chemicals under the new statutory standard in the June 2016 TSCA amendments. The proposals will be closely scrutinized.

## UPCOMING MILESTONES:

- **April 2017** – Comment period closes on proposed rule.

## BACKGROUND:

- The proposed rule was signed in January 2017.
- Methylene chloride is a volatile solvent that is used in consumer and commercial paint and coating removal. It is a probable human carcinogen and causes other chronic effects. At least one worker death annually is attributed to neurotoxic effects of methylene chloride. NMP is used in consumer and commercial paint and coating removal and is often a substitute for methylene chloride in consumer uses. NMP is a developmental toxicant presenting risks of fetal death and decreased birthweight.
- EPA has committed to take action under TSCA to reduce unreasonable risks identified by TSCA risk assessments. The June 2016 TSCA amendments provide for EPA to move forward with regulatory action in a manner consistent with the scope of the completed risk assessments.
- In final risk assessments issued in 2014 and 2015, EPA identified non-cancer and cancer risks associated with use of methylene chloride and NMP in commercial and consumer paint and coating removal. (b) (5)

[REDACTED]

[REDACTED] Section 6(a) provides authority for the EPA to ban or restrict the manufacture (including import), processing, distribution in commerce, and commercial use of chemical substances, as well as any manner or method of disposal of chemical substances. Consultations with state, tribal and environmental justice stakeholders took place in May 2015; a small business advocacy review panel concluded in September 2016.

- EPA's risk assessment identified unreasonable risks for use of methylene chloride in commercial furniture refinishing, but this use is not addressed by the proposed rule. (b) (5)

[REDACTED]

KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☒ Industry    ☒ States    ☐ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☐ Local Government    ☐ Other (name of stakeholder) \_\_\_\_\_

- (b) (5) [REDACTED]
- █ [REDACTED]
- █ [REDACTED]

MOVING FORWARD:

(b) (5) [REDACTED]

LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS:

# THE MONTREAL PROTOCOL AND HFCs

## ISSUE SUMMARY:

In October 2016, the Parties to the Montreal Protocol – with significant U.S. leadership – concluded an agreement (referred to as the Kigali Amendment) to amend the treaty to phase down and reduce the production and consumption of a new class of gases: hydrofluorocarbons (HFCs), greenhouse gases that can be thousands of times more potent than carbon dioxide (CO<sub>2</sub>). Stakeholders in industry, the media and Congress are likely to seek information on the approach the U.S. will take to join the treaty amendment, and more concrete and specific guidance about approaches EPA may take to prepare for domestic implementation of new amendment requirements.

## UPCOMING MILESTONES:

- **Early-mid 2017** - preparatory work to facilitate U.S. actions that would be consistent with the 2019 initial control measure and new reporting requirements for HFCs under the Montreal Protocol.
- **2017 Spring, Fall and Winter meetings of the Montreal Protocol** - will include regular open-ended and high-level decisional meetings, meetings of the Executive Committee of the Multilateral Fund to assist developing countries, and consideration of a Fall 2017 decision by the Parties to the Montreal Protocol on Replenishment of the Multilateral Fund to enable developing country compliance with the Montreal Protocol and its new HFC requirements.

## BACKGROUND:

The Montreal Protocol on Substances that Deplete the Ozone Layer is often noted as the most successful multilateral environmental treaty ever negotiated. Over its 30-year history, the Protocol has supported the global phase out of most ozone-depleting substances (ODS) and has put the world on course to ozone layer recovery by mid-century. Reasons for the Protocol's success include the fact that both developed and developing countries assume binding commitments to achieve reductions in controlled substances, and the Protocol includes its own Multilateral Fund which supports developing country implementation and compliance.

HFCs are widely used in refrigeration and air-conditioning applications where they are often used as replacements for substances that depleted the ozone layer. As a consequence of the ODS phase-out and the burgeoning global demand for refrigeration and air conditioning, use of HFCs is rising fast. Many HFCs have a high global warming potential (GWP). Left unchecked, it is estimated that HFC emissions could account for up to 19% of total global CO<sub>2</sub> equivalent (CO<sub>2</sub>eq) emissions in 2050.

In his 2013 Climate Action Plan, President Obama called for EPA to use its authority under the Clean Air Act's Significant New Alternatives Policy (SNAP) program to identify and approve climate-friendly alternatives while prohibiting certain uses of the most harmful alternatives. Toward that end, EPA has, over the last two years, promulgated rules and issued notices expanding the menu of low GWP options and prohibiting the use of

certain high GWP HFCs in applications where safe and more environmentally sound alternatives are available. EPA has also put in place rules establishing requirements for the handling, recovery and recycling of HFCs and other substitutes that match requirements in place for ODS. Combined, these rules will reduce domestic HFC emissions in 2025 by 67-78 million metric tons of CO<sub>2</sub>eq.

More broadly, the U.S. government has updated the Federal Acquisition Regulations to govern federal purchasing and align it with the advancement and implementation of lower-GWP options.

Globally, the Montreal Protocol's Kigali Amendment is expected to avoid over 80 billion metric tons of CO<sub>2</sub>eq cumulatively through 2050 and up to 0.5 degree Celsius of warming by 2100.

Legal obligations or public commitments:

- Under the Kigali Amendment, the U.S. committed to a 10% reduction in HFC consumption and production in 2019, a 40% reduction by 2024, a 70% reduction by 2029, an 80% reduction by 2034 and an 85% reduction by 2036. In addition, the U.S. committed to report on production, and imports and exports of HFCs. The U.S. also committed to reduce emissions of HFC-23 from production of HCFCs and HFCs. Further, the U.S. will continue to contribute to the Multilateral Fund to enable developing country implementation and compliance.
- The U.S. committed to provide support to the Protocol's Multilateral Fund in 2017 to support quick-start implementation by developing countries.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Government      ☒ Other: Foreign Governments

Industry stakeholders have supported the HFC amendment for many years. Their support is rooted in their interest in the certainty and predictability of an international HFC phase-down accord with a clear schedule. (b) (5)

EPA works closely with the State Department on all matters associated with the Montreal Protocol.

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS:



# NAAQS Implementation

## ISSUE SUMMARY:

The National Ambient Air Quality Standards (NAAQS) continue to be a cornerstone for protecting public health across the U.S. This paper provides a summary of the current standards and implementation status, upcoming milestones, and pending litigation for the NAAQS revised since 2008.

## UPCOMING MILESTONES:

### Ozone

#### *2008 Ozone NAAQS:*

- **Early 2017** - There are several legal challenges to various ozone-related actions, including:
  - the implementation rule for the 2008 ozone NAAQS
  - EPA's failure to issue findings of failure to submit (FFS) for – and EPA's failure to act on – certain ozone plans submitted by states for the 2008 ozone NAAQS.
  - Final briefs have been filed in the litigation challenging the 2008 ozone NAAQS implementation rule, with the oral argument yet to be scheduled. States' work to develop required plan submissions identified in the FFS complaint is ongoing.

#### *2015 Ozone NAAQS:*

- **Early 2017** - EPA proposed an implementation rule for the 2015 ozone NAAQS in Nov. 2016, with a comment period closing on February 13, 2017. This rule is important because states need to know what the requirements are for each area with an ozone problem; as per the Clean Air Act, areas with more significant problems will have more to do. Finishing this rule is necessary so we can meet the October 2017 statutory deadline for designating areas under the 2015 standard and provide the states with timely information.
- **Early 2017** - The 2015 ozone NAAQS is being challenged in court. Final briefs have been filed. Oral arguments have been scheduled for April 19, 2017.
- **October 2017** – Statutory deadline for EPA to finalize designations for the 2015 ozone NAAQS. State and tribal recommendations were received in October 2016. Proposed designation decisions need to be made by March/April 2017.

### Sulfur Dioxide

- **December 2017**- EPA's court ordered deadline to designate additional (Round 3) areas for the 2010 SO<sub>2</sub> NAAQS is December 2017; this date necessitates proposed designation decisions for all Round 3 areas be made by July 2017. Note: challenges to the designations made in 2016 (Round 2) may necessitate further action by EPA.

## BACKGROUND:

The CAA requires EPA to review the NAAQS every five years to make sure the standards reflect the latest scientific information. There are six NAAQS criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM), lead (Pb) and sulfur dioxide (SO<sub>2</sub>). Each NAAQS pollutant has a standard to protect public

health (primary) and, with the exception of CO, a standard to protect welfare (secondary), such as ecosystems. Implementation of the NAAQS involves a federal-state partnership.

After EPA issues a new or revised NAAQS, EPA must “designate” areas of the country according to whether they are meeting or not meeting the NAAQS following a consultative process with the states and tribes. States have primary responsibility for NAAQS implementation. They submit plans, known as state implementation plans (SIPs), to show how they will meet each NAAQS. Federal oversight and assistance to these air agencies involves significant policy and technical support.

### Ozone

- EPA finalized the **2008 Ozone NAAQS** in March 2008 (8-hour standard of 75 parts per billion (ppb)). EPA designated 46 nonattainment (NA) areas in July 2012. In 2016, EPA reclassified 13 of these areas from “Marginal” to “Moderate” which allows more time to meet the standard and imposes more planning and control requirements.
- EPA finalized the **2015 Ozone NAAQS** in October 2015 to an 8-hour standard of 70 ppb. The CAA requires EPA to designate areas by October 2017. The 2015 ozone NAAQS are being challenged by a variety of stakeholders.

### Particulate Matter

- EPA finalized the **2006 PM<sub>2.5</sub> NAAQS revision** in Oct 2006 (24-hour average of 35 micrograms per cubic meter (ug/m<sup>3</sup>)) and the **2012 PM<sub>2.5</sub> NAAQS revision of the primary standard** (annual mean of 12 ug/m<sup>3</sup> averaged over 3 years) in December 2012. EPA has been sued to take certain actions relating to the attainment and nonattainment planning requirements for the original designations for 2012 PM<sub>2.5</sub> NAAQS and relating to certain 2006 PM<sub>2.5</sub> NAAQS nonattainment areas, which may necessitate further action by EPA.

### Sulfur Dioxide

- EPA finalized the **2010 primary SO<sub>2</sub> NAAQS** in June 2010 (1-hour average of 75 ppb). In July 2013, EPA designated 29 NA areas in 16 states and, in April 2016, issued findings of failure to submit attainment plans for 16 of these nonattainment areas in 11 states. In June and November 2016, EPA completed the 2<sup>nd</sup> of 4 “rounds” of area designations.

### Lead

- In 2008, EPA strengthened the **Lead NAAQS to a rolling 3-month average of 0.15 ug/m<sup>3</sup>**. In September 2016, EPA decided to retain the existing 2008 standards. Currently 21 areas remain designated nonattainment, with nearly all expected to reach attainment by the end of 2016.

### Nitrogen Dioxide and Sulfur Dioxide – welfare effects

- When EPA reviewed the **Secondary NO<sub>x</sub> and SO<sub>x</sub> NAAQS** in 2012, the Agency decided to retain the existing secondary standards.

### Nitrogen Dioxide

- When EPA reviewed the **Primary NO<sub>2</sub> NAAQS** in 2010, the Agency revised the 1-hour primary NO<sub>2</sub> NAAQS to 100 ppb (1-hour average). The annual primary NO<sub>2</sub> standard was retained.

KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☐ other (name of stakeholder) \_\_\_\_\_

• (b) (5)

MOVING FORWARD:

The NAAQS timelines mandated by the CAA compel certain actions by EPA and the states. Our goal is to provide useful and timely guidance/assistance to the states as they implement each of the revised NAAQS. The NAAQS that are currently under review are the 2010 primary SO<sub>2</sub> NAAQS, the 2012 PM<sub>2.5</sub> NAAQS, the 2010 primary NO<sub>2</sub> NAAQS, and the 2012 NO<sub>x</sub>/SO<sub>x</sub> secondary NAAQS.

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS: OGC, REGIONAL OFFICES

# NANOMATERIALS (TSCA 8(A) RULE)

## ISSUE SUMMARY:

EPA finalized a requirement under section 8(a) of the Toxic Substances Control Act (TSCA) for reporting on certain existing chemical substances when they are manufactured or processed at the nanoscale. This rule involves one-time reporting for discrete forms of certain nanoscale materials currently on the market and a standing one-time reporting requirement for each new discrete form of certain nanoscale materials before those new forms are manufactured or processed.

## BACKGROUND:

Nanoscale materials are generally described as chemical substances in the size range of 1-100 nanometers (nm), or as containing structures in the 1-100 nm size range. Some nanoscale materials may exhibit behaviors that lead to environmental, health and safety implications that are different from non-nanoscale forms of the same chemical substances. This rule attempts to obtain information pertaining to potential health and environmental effects of nanoscale materials while not unduly inhibiting their development.

The reporting rule would help ensure that EPA has basic information for commercial nanoscale materials to:

- Increase understanding of what nanoscale materials are in commerce;
- Inform EPA efforts to characterize risk; and
- Make information available to the Agency that will enhance EPA's ability to make appropriate risk management decisions.

The proposal was a requirement to report information only. The proposed rule included data collection such as specific chemical identity, material characterization and use. It did not make any risk finding, impose any restrictions on commercial activity or require testing.

Public comments on the proposed rule ([80 FR 18330; April 6, 2015](#)) identified issues with defining chemical substances that are subject to the rule, such as the meaning of unique and novel properties. Comments also addressed exemptions from the rule, including trace amounts and particle size. (b) (5)

On January 12, 2017 EPA published the final rule. Persons who manufacture or process a reportable chemical during the three years prior to the final effective date of this rule (May 12, 2017) must report to EPA within a year of the rule's publication.

## KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress
 ☒ Industry
 ☐ States
 ☐ Tribes
 ☒ Media
 ☒ Other Federal Agency  
☒ NGO
 ☐ Local Government
 ☐ Other (name of stakeholder) \_\_\_\_\_

All of the noted stakeholders have demonstrated keen interest in any regulatory activity regarding nanoscale materials.

MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS:

# NEW TSCA

## ISSUE SUMMARY:

On June 22, 2016, the President signed into law the Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act, which amends the 1976 [Toxic Substances Control Act \(TSCA\)](#), the nation's primary chemicals management law, to reduce the public's risks from exposure to harmful chemicals. Among other things, the law: requires EPA to evaluate and act on existing chemicals within clear and enforceable deadlines and evaluate new and existing chemicals purely on the basis of the risks they pose; provides for increased public transparency of chemical information; and authorizes fees to augment appropriations as a source of funding for EPA to carry out its responsibilities.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- [REDACTED]
- **Late-May/Mid-June 2017** - As required by the new law, on November 29, 2016, EPA identified the first 10 chemicals to undergo risk evaluation. EPA must publish the scope of each evaluation within six months of identifying the first 10.

## BACKGROUND:

The new law received overwhelming bipartisan support in both the House of Representatives and the Senate and was supported by the chemical industry, product manufacturers, and NGO's. It includes much-needed improvements to TSCA, the nation's primary law to address chemicals in commerce.

The Agency must now execute these new responsibilities:

- EPA must evaluate new and existing chemicals against a new risk-based safety standard that includes explicit considerations for potentially exposed and susceptible subpopulations. Whether a risk is unreasonable is to be determined without consideration of costs or other non-risk factors.
- EPA must evaluate risks, and must act to address unreasonable risks identified in those evaluations, within clear and enforceable deadlines.
- EPA's authorities to require development of information on chemical risk are expanded and expedited, as EPA can now issue orders under Section 4. EPA must make an affirmative determination on every new chemical before manufacture for commercial purposes may commence.
- The law requires that industry substantiate claims of business confidentiality and that EPA review certain of those claims within defined timeframes. The law also allows for the appropriate sharing of confidential information with states and health and environmental professionals.

- The law authorizes up to \$25 million in annual user fees, as long as appropriations do not drop below a specified level.

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- The law authorizes up to \$25 million in annual user fees, as long as appropriations do not drop below a specified level.

In January 2017:

- EPA submitted a report to Congress on its capacity to implement the new law.
- EPA proposed three risk management rules under Section 6 of TSCA consistent with the new TSCA.
- EPA proposed framework rules. The rules are intended to establish the processes by which statutory authorities will be carried out in the future: a rule establishing the process for identifying high-priority chemicals for risk evaluation; a rule defining the risk evaluation process; and a rule requiring industry reporting of chemicals on the current TSCA inventory that have been manufactured in the past 10 years.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress   
 ☒ Industry   
 ☒ States   
 ☐ Tribes   
 ☒ Media   
 ☒ Other Federal Agency  
☒ NGO   
☐ Local Government   
☐ Other (name of stakeholder) \_\_\_\_\_

There is keen interest in the interpretation and implementation of the law by all stakeholders.

The new standard for review of new chemicals and the new requirements for substantiation and review of confidential business information (CBI) claims both became effective upon enactment. (b) (5)

[REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED] EPA will be addressing some of these  
 issues in the upcoming TSCA rulemakings and other actions.

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS:

AAship	Stage	Signature Date
OW	Final Rule	05/27/2015
OAR	Final Rule	08/03/2015
OAR	Final Rule	08/03/2015
OCSPP	Final Rule	09/28/2015
OAR	Final Rule	09/29/2015
OW	Final Rule	09/30/2015
OAR	Final Rule	10/01/2015
OAR	Final Rule	05/12/2016
OAR	Report	07/15/2016
OAR	Final Rule	08/16/2016
OAR	Final Rule	09/07/2016
OAR	Final Rule	09/16/2016
OAR	Final Rule	07/14/2016
OAR	Final Rule	07/14/2016



## Notable EPA Regulatory Actions from January 2015-Oct

### Working Title

Clean Water Rule: Definition of 'Waters of the United States'  
Carbon Pollution Guidelines for Existing Sources:Electric Utility Generating Units  
EGU Carbon Pollution Standards - New, Modified and Reconstructed Sources  
Agricultural Worker Protection Standards Revisions  
Petroleum Refinery Sector NESHAP and RTR  
Steam Electric Effluent Guidelines  
Ozone NAAQS Review  
2016 Oil & Natural Gas Sector NSPS (Methane)  
Mid Term Evaluation for Model Year 2022-2025  
Heavy-duty Vehicles GHG Emissions Standards - Phase 2  
Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS  
Lead NAAQS Review  
NSPS Review for Municipal Solid Waste Landfills - New and Modified Sources  
Emission Guidelines for Municipal Solid Waste Landfills - Existing Sources

tober 2016

**EPA website for more information**

<https://www.epa.gov/cleanwaterrule>

<https://www.epa.gov/cleanpowerplan/carbon-pollution-standards-final-rule-aug>

<https://www.epa.gov/cleanpowerplan/carbon-pollution-standards-new-modific>

<https://www.epa.gov/pesticide-worker-safety/revisions-worker-protection-stanc>

<https://www.epa.gov/stationary-sources-air-pollution/petroleum-refinery-sector>

<https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2>

<https://www.epa.gov/ozone-pollution/2015-national-ambient-air-quality-standar>

<https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/new-s>

<https://www3.epa.gov/otaq/climate/mte.htm>

<https://www3.epa.gov/otaq/climate/regs-heavy-duty.htm>

<https://www.epa.gov/airmarkets/final-cross-state-air-pollution-rule-update>

<https://www.epa.gov/lead-air-pollution/national-ambient-air-quality-standards-n>

<https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-lan>

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[015-final-rule](#)  
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# NATIONAL PROGRAM MANAGER (NPM) GUIDANCES

## ISSUE SUMMARY:

EPA uses [National Program Manager \(NPM\) Guidances](#) to operationalize the Agency's annual performance plan and budget decisions through program-specific priorities, strategies, and measures for the regions, states, and tribes. NPM Guidances can be issued only after release of EPA's Budget and provide critical information to guide negotiation of grant work plans with states and tribes. The transition to a new administration will delay the release of the FY 2018 President's Budget to incorporate new priorities, which will delay issuance of the FY 2018-2019 NPM Guidances.

## UPCOMING MILESTONES:

- **Spring 2017-** (after issuance of FY 2018 Budget): Issuance of draft FY 2018-2019 NPM Guidances, which reflect internal 2-week EPA review, followed by external comment period (REQUIRED).
- **Late Spring 2017-** Issuance of final FY 2018-2019 NPM Guidances, posted on the EPA website (REQUIRED).
- **Summer-Fall 2017-** NPM/regional negotiation of FY 2018 annual operational measures and regional commitments associated with the FY 2018-2019 NPM Guidances (INTERNAL DEADLINE).
- **Fall 2017-** The Office of the Chief Financial Officer's Technical Guidance for the FY 2019 Exceptions-Based Addendums to the FY 2018-2019 National Program Manager Guidance and Annual Commitment Process (INTERNAL DEADLINE).

## BACKGROUND:

The NPM Guidances are long-standing and essential components of EPA's planning, budgeting and accountability processes, although not required by statute. The Office of the Chief Financial Officer manages and oversees the agency-wide NPM Guidance process, including maintaining the internal agency system for establishing and reporting annual performance commitments. The primary audience for the NPM Guidances are EPA headquarters and regional offices and EPA's state and tribal partners. The program-specific priorities and annual performance commitments contained in the NPM Guidances also inform EPA-state and EPA-tribal grant work planning.

The EPA implements a two-year cycle for the NPM Guidances, which includes exceptions-based addendums in the second year to address high-level changes not captured in the two-year guidances. The two-year process is intended to strengthen earlier, more meaningful state and tribal engagement and increase flexibility for the EPA regions, states and tribes, while streamlining the workload associated with joint planning activities. The Addendums capture significant changes to program priorities and strategies that must be addressed in the second year of the two-year cycle.

Each of the five major environmental programs (Office of Air and Radiation, Office of Enforcement and Compliance Assurance, Office of Chemical Safety and Pollution Prevention, Office of Land and Emergency Management, Office of Water) develop NPM Guidances.

Each NPM Guidance:

- Operationalizes priorities and strategies in the EPA's Annual Performance Plan and Budget consistent with EPA's Strategic Plan;
- Reflects NPMs' and regions' collaborative engagement with states and tribes to identify the most important areas of focus for carrying out work to protect human health and the environment.
- Translates annual planning/budget choices into programmatic operational priorities to inform state and tribal grant agreements, which support implementation of federal environmental laws.
- Includes Regional/NPM annual performance commitments to assess progress in implementing programs and policy.

Individual NPM Guidances are tailored to each program and build a consistent format which includes national areas of focus, program-specific guidance, and performance measures.

#### KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress      ☐ Industry      ☒ States      ☒ Tribes      ☐ Media      ☐ Other Federal Agency  
☐ NGO      ☐ Local Government      ☐ Other (name of stakeholder) \_\_\_\_\_

The program-specific priorities and annual performance commitments contained in the NPM Guidances inform EPA-state and EPA-tribal grant work planning.

#### MOVING FORWARD:

One approach the new Administration can take:

- New administration issues priorities for EPA, which guide development of FY 2018 Annual Performance Plan and Budget, and subsequent FY 2018-2019 NPM Guidances.
- OCFO communicates to the NPMs any significant changes to the Agency's for FY 2018 and updated milestones for issuance of draft and final FY 2018-2019 NPM Guidances.

LEAD OFFICE/REGION: OCFO      OTHER KEY OFFICES/REGIONS: OAR, OCSP, OECA, OLEM, OW, OEI, OITA, OCIR, ALL 10 REGIONS

# Nutrient Pollution (Including Harmful Algal Blooms)

## ISSUE SUMMARY:

Nutrient pollution remains one of America's most widespread and costly environmental and public health challenges. Excess nitrogen and phosphorus in our waterways has steadily increased, degrading water quality, feeding harmful algal blooms (HABs), affecting drinking water sources, and contributing to costly impacts on recreation, tourism, and fisheries.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]

## BACKGROUND:

Nutrient pollution contributes to increasing HABs in surface waters that can release toxins that pose risks to human health and the environment. In August 2014, a HAB contaminated the drinking water supply of Toledo, Ohio, with cyanotoxins that led to a weekend-long "do-not-drink" order. Major blooms were also reported in the Ohio River in 2015 and in Utah lakes, Florida, and other locations in 2016.

Excess nutrients from "[nonpoint](#)" sources, such as runoff from agricultural and residential areas that are not easily regulated under federal law are a major contributor to the formation of HABs; thus, partnerships and collaboration are critical to making sustained progress on reducing this threat. In September 2016, EPA issued a [memo asking State Environmental Commissioners and State Water Directors](#) to redouble their efforts in collaboration with EPA, and to take concerted action to address nutrient pollution. In addition, EPA is offering \$600,000 in technical support to states and tribes focused on incremental actions to reduce threats to public health from nitrates in drinking water and HABs.

On December 19, 2016, EPA [proposed recreational water criteria/swimming advisories](#) for two cyanotoxins in time to finalize them before the 2017 HABs season. The proposed criteria are available for public comment for 45 days.

In November 2016, EPA submitted to Congress the [Algal Toxin Risk Assessment and Management Strategic Plan for Drinking Water](#), a plan for assessing and managing risks associated with algal toxins in drinking water systems.

The report is required by the 2015 Drinking Water Protection Act. In June 2015, EPA published non-regulatory Drinking Water Health Advisories for two cyanotoxins (microcystins and cylindrospermopsin). The advisories provide drinking water system operators, and state, tribal, and local officials with information on the health risks of these cyanotoxins. EPA also published [\*Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water\*](#), to assist public water systems that choose to develop plans for evaluating and monitoring their source, raw, and finished drinking waters for cyanotoxin contamination.

Since 2010, hundreds of millions of dollars have been allocated through the [Great Lakes Restoration Initiative](#) for projects to reduce nutrients in the Great Lakes. More than \$60 million was invested in the Lake Erie Basin from 2010 to 2015 to reduce pollution and support science and monitoring.

Under the Clean Water Act, each state and authorized tribe must submit to EPA a list of waters not meeting water quality standards (i.e., impaired waters), as well as Total Maximum Daily Loads (TMDLs) of pollutants for these waters. If EPA disapproves a list, it must add any missing waters not attaining standards to the list. If EPA disapproves a TMDL, it must establish a replacement TMDL. Currently, more than 8,600 TMDLs have been established for nutrient-related pollution, primarily by states, for more than 5,800 waters.

## KEY EXTERNAL STAKEHOLDERS:

<input checked="" type="checkbox"/> Congress	<input checked="" type="checkbox"/> Industry	<input checked="" type="checkbox"/> States	<input type="checkbox"/> Tribes	<input checked="" type="checkbox"/> Media	<input checked="" type="checkbox"/> Other Federal Agency
<input checked="" type="checkbox"/> NGO	<input type="checkbox"/> Local Governments	<input checked="" type="checkbox"/> Other (name of stakeholder) Agriculture, USDA			

## MOVING FORWARD:

- (b) (5) [REDACTED]

- (b) (5) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

LEAD OFFICE/REGION: OW

OTHER KEY OFFICES/REGIONS: ORD, GREAT LAKES  
NATIONAL PROGRAM, ALL EPA REGIONS



# EPA'S OFFICE OF ENVIRONMENTAL JUSTICE

## ISSUE SUMMARY:

EPA's work on environmental justice issues is focused on trying to help communities that are suffering from unhealthy and excessive pollution by addressing those effects through the implementation of our environmental programs. EPA also helps to promote redevelopment and economic revitalization in low income and minority communities by working collaboratively with government partners at all levels to identify resources for the communities that need it most. To support both sets of activities, the Office of Environmental Justice plays a critical role in coordinating, supporting and advising programs and Regions across EPA.

## UPCOMING MILESTONES:

- (b) (5)

## BACKGROUND:

Since 1992, the Office of Environmental Justice (OEJ) has led efforts across EPA to address issues that impact our nation's most vulnerable communities, such as unhealthy and excessive pollution. EPA also seeks to identify governmental partners that can help revitalize communities struggling against economic decline. OEJ focuses its efforts in several main areas. First, it uses grants, technical assistance, and the convening of meetings to promote collaborative problem solving at a local level. These resources and activities, though comparatively modest, have led to meaningful and sustainable change in communities across the United States. OEJ also manages important forums for the Agency, most notably the National Environmental Justice Advisory Committee (NEJAC), which provides community leaders, academics, state and local government officials, and business leaders a regular opportunity to engage with EPA on issues central to the needs of communities that need help the most. OEJ also leads the EJ Interagency Working Group, an important body chaired by the EPA Administrator that coordinates the work of federal government agencies to help address the needs and challenges of EJ communities. Finally, OEJ actively advises and collaborates with others in the Agency to further consideration of the nation's most vulnerable communities. This includes consideration of EJ in things such as permitting, rulemaking, and the intersection of EJ with tribal issues.

In October of 2016, EPA released the EJ 2020 Action Agenda, the Agency's comprehensive strategy for making further progress on environmental justice. (A separate issue paper is available that more fully describes EJ 2020.) While OEJ plays a critical role supporting and coordinating efforts related to the EJ 2020 Action Agenda, the responsibility for the plan's implementation is shared by programs and Regions throughout the Agency.

## KEY EXTERNAL STAKEHOLDERS:

- |  |   |  |  |                                |  |
|--|---|--|--|--------------------------------|--|
| <input checked="" type="checkbox"/> Congress | <input checked="" type="checkbox"/> Industry          | <input checked="" type="checkbox"/> States                                   | <input checked="" type="checkbox"/> Tribes | <input type="checkbox"/> Media | <input checked="" type="checkbox"/> Other Federal Agency |
| <input checked="" type="checkbox"/> NGO      | <input checked="" type="checkbox"/> Local Governments | <input checked="" type="checkbox"/> Other (name of stakeholder): Communities |  |                                |  |

Communities and NGOs will be closely following the Agency's progress on EJ 2020.

MOVING FORWARD:

(b) (5)

I

[REDACTED]

[REDACTED]

I

[REDACTED]

LEAD OFFICE/REGION: OECA, REGION 7

OTHER KEY OFFICES/REGIONS:

# OIL & GAS

## ISSUE SUMMARY:

The oil and gas sector, which for purposes of this paper does not include refineries, is the largest industrial source of volatile organic compounds (VOCs) that contribute to ozone pollution. Some of these VOCs, such as benzene, are also toxic. The sector also emits methane, a powerful greenhouse gas (GHG). The oil and gas sector is the second largest industrial contributor to U.S. GHG emissions.

## UPCOMING MILESTONES:

- **Mid-February** - EPA will release the Greenhouse Gas Inventory, which includes methane emissions estimates, for public comment.
- **April 15** - EPA is required under the Framework Convention on Climate Change to submit to the U.N. an annual estimate of all U.S. GHG emissions.

## BACKGROUND:

Oil and gas production have grown by 85% and 40%, respectively, over the past decade, and there are now more than 1 million producing oil and gas wells in the U.S. The associated increase in emissions from oil and gas operations has created air quality problems--primarily ozone--in many areas. EPA's recent ozone standard may mean additional oil and gas areas will need to prepare clean air plans which include VOC control measures.

Methane is about 25 times more powerful as a GHG than carbon dioxide. About 30% of U.S. methane emissions come from the oil and natural gas sector.

EPA has taken several regulatory and voluntary actions aimed at reducing emissions from new and modified wells and other facilities and operations in the industry. In March 2016, EPA launched Methane Challenge, an expansion of the Natural Gas Star voluntary program with 41 oil and gas company partners. Methane Challenge encourages oil and gas companies to make ambitious commitments to reduce methane emissions and to transparently track their progress.

In June, EPA published updates to the New Source Performance Standards (NSPS) for Oil and Gas Production that established GHG standards in the form of limits on methane emissions. A number of states and industry groups have sought judicial review of the standards primarily challenging EPA's authority to regulate GHG, as well as its authority to regulate across the industry, from production through transmission and storage. In November, EPA will finalize revisions to the GHG reporting rule for oil and gas facilities to align leak monitoring methods under the GHG Reporting Program with those in the NSPS.

In October, EPA released Control Techniques Guidelines (CTGs) for existing oil and gas production sources in ozone nonattainment areas and the Ozone Transport Region. These guidelines establish Reasonably Available Control Technology (RACT) for VOC control. State Implementation Plans for achieving the ozone standard must include RACT requirements or explain why they are inappropriate.

In addition to air emissions, oil and gas production also generates solid wastes and wastewater. Environmental Integrity Project and others have sued EPA for failing to review and revise non-hazardous waste regulations for oil and gas wastes, as required by section 2002(b) of the Resource Conservation and Recovery Act. For information on wastewater, see the summaries for hydraulic fracturing and injection induced earthquakes.

KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☐ Other: \_\_\_\_\_

EPA shares regulatory authority with states and tribes and closely engages with them.

MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS: OGC, OECA, REGIONS 3, 5, 6, 8

# THE PARIS AGREEMENT ON CLIMATE CHANGE

## ISSUE SUMMARY:

The United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement reached in December 2015 entered into force on November 4, 2016. The Agreement aims to hold the increase in global average temperature to well below 2 degrees Celsius, and to pursue efforts to limit the increase to 1.5 degrees Celsius.

## UPCOMING MILESTONES:

- **May 2017** - Bonn Climate Change Conference, Bonn, Germany.

## BACKGROUND:

The Paris Agreement establishes cycles for progressively increasing action, tracking progress and assessing the impact of collective actions. It requires all countries that become Parties to the Agreement to report every two years on greenhouse gas (GHG) emissions and progress made to reduce those emissions, update actions in the form of Nationally Determined Contributions (NDCs) with increasing ambition every five years, and undertake a “global stocktake” every five years to assess whether or not current efforts are adequate.

For its first NDC, the U.S. intends to achieve an economy-wide target of reducing its GHG emissions by 26 to 28 percent below its 2005 level in 2025, and to make best efforts to reduce its emissions by 28%. The U.S. has already taken significant action to reduce its emissions, taking necessary steps toward achieving the U.S. 2020 target of reducing emissions in the range of 17 percent below the 2005 level. The next round of NDCs are due ahead of the 2020 Conference of the Parties (COP).

- *Legal obligations or public commitments:*
  - The United States Senate provided its advice and consent to U.S. ratification of the UNFCCC on October 7, 1992, and the U.S. ratified the UNFCCC on October 15, 1992;
  - The U.S. has a legally binding obligation under the UNFCCC to report greenhouse gas inventories, and to communicate progress on addressing climate change.
- *Recent actions taken:*
  - The U.S. joined the Paris Agreement on September 3, 2016.
  - The U.S. Midcentury Strategy was released in November 2016.<sup>1</sup>

## KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency
- ☒ NGO      ☐ Local Government
- ☒ Other: International allies, trade partners, G7, G20, Canada, Mexico, EU

<sup>1</sup> (available at: [https://www.whitehouse.gov/sites/default/files/docs/mid\\_century\\_strategy\\_report-final.pdf](https://www.whitehouse.gov/sites/default/files/docs/mid_century_strategy_report-final.pdf))

Key concerns: (b) (5)

[REDACTED]

#### MOVING FORWARD:

- Major challenges, concerns, and sensitivities:

(b) (5)

[REDACTED]

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS: OITA

# PCBS IN SCHOOLS AND DAYCARES

## (FLUORESCENT LIGHT BALLASTS)

### ISSUE SUMMARY:

An increasing number of schools built or renovated between 1950-1979 have discovered building materials containing polychlorinated biphenyls (PCBs) (e.g., non-liquid PCBs in caulk and paint and liquid PCBs in fluorescent light ballasts (FLBs)). This issue has attracted the attention of parents, teachers, environmental groups, Congress, and the media due to concerns that children and teachers are potentially being exposed to a harmful chemical and concerns that EPA is not doing enough to address the issue and has taken inconsistent approaches to managing unauthorized PCB uses.

### UPCOMING MILESTONES/DECISIONS:

- The proposed rule to end the use authorization for PCB-containing FLBs in schools and daycare centers was submitted to the Office of Management and Budget on November 18, 2016 and is currently undergoing review. Reviews are scheduled to conclude 90-days from submission.

### BACKGROUND:

#### Scope of the Issue

- PCBs were used in hundreds of industrial and commercial applications from 1929 until the manufacture, processing, distribution in commerce, and use of PCBs were banned by statute in 1979.
- The presence of PCBs in building materials is potentially widespread and affects schools, and other buildings and structures, built or renovated roughly between 1950 and 1979.
- PCBs can cause a variety of adverse health effects, including cancer and effects on the immune system, reproductive system, nervous system and endocrine system.

#### PCB Regulations

- PCB-containing building materials in a structure may be an ongoing use, depending on the location and purpose of the materials. Use of materials with greater than or equal to 50 ppm PCBs is banned unless specifically authorized by regulation, as noted below. There is, however, no requirement that building materials be tested for the presence of PCBs.
- TSCA Section 6(e) provides that, if it can be demonstrated that there is no unreasonable risk of injury to health or the environment, EPA may authorize continued uses of PCBs by regulation.
- PCB small capacitors contained in FLBs with greater than or equal to 50 ppm are authorized by regulation for continued use, as long as they are not leaking. Once they leak, they are no longer authorized. PCB FLBs have exceeded their designed lifespan and as this equipment continues to age, the probability for rupture and PCB emissions increases. There are no use authorizations for PCB-containing building materials such as caulk and paint.

#### School Enforcement Issues

- An increasing number of schools built or renovated between 1950-1979 are being tested and found to include

unauthorized building materials containing PCBs, which means that the schools are in violation of TSCA and the PCB regulations.

- Due to issues regarding costs and potential exposure to building occupants, immediate removal of unauthorized PCB-containing materials may not be feasible or safe. When PCB-containing building materials are discovered, prior to removal for proper disposal, EPA regional offices use various regulatory and non-regulatory approaches to give school officials flexibility to address removal of the material while taking interim steps to reduce PCB exposure and help ensure there is no unreasonable risk of injury to occupants in the interim. However, none of the currently used approaches authorize the continued use of PCB containing building materials.

#### Other Recent Activity

- In schools where the presence of PCB-containing materials is unknown, EPA encourages school officials to take steps that will reduce exposure to PCBs if they are present. The PCBs Building Materials Workgroup, led by the Office of Chemical Safety and Pollution Prevention (OCSP), issued updated [PCBs in Building Materials—Questions & Answers](#) guidance, and an associated [Fact Sheet](#) in July 2015. These documents form the national guidance that EPA recommends schools follow, including implementing best management practices to reduce potential exposures (e.g., enhanced cleaning, ensuring proper ventilation and removal of PCB FLBs) and consulting with EPA Regional PCB coordinators to assess whether to test indoor air for PCBs. (b) (5)

#### KEY EXTERNAL STAKEHOLDERS:

- ☐ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☒ Other: Schools, Parent/Teacher Associations, building owners, public advocacy groups

- (b) (5)
- In October 2016, Sen. Markey released a [report](#) noting that there is no federal or state requirement to inspect and test for PCBs and that the Senator plans legislation. The report calls on EPA to update regulations, conduct a nationwide survey of all schools for hazards and develop guidance for recordkeeping and remediation of toxic chemicals.

#### MOVING FORWARD:

- (b) (5)

LEAD OFFICE/REGION: OCSP, OLEM

OTHER KEY OFFICES/REGIONS: OGC, OECA, ORD, OCHP, REGIONS 1, 2, 9



# PER- AND POLYFLUOROALKYL SUBSTANCES (PFASs) AT DEPARTMENT OF DEFENSE FACILITIES

## ISSUE SUMMARY:

The Department of Defense (DoD) maintains and operates wastewater and drinking water treatment facilities at many of its installations in the United States. DoD provides drinking water to 3.4 million people living and working on DoD installations and operates more than 100 domestic wastewater facilities. Multiple offices within EPA are working with DoD as both a drinking water purveyor and a federal agency with authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to investigate and address PFASs releases and groundwater contamination as a result of DoD activity. EPA is taking steps to address PFASs that threaten public health. Many of DoD's facilities are on the NPL and, therefore, per CERCLA, EPA oversees the cleanup of these facilities.

## UPCOMING MILESTONES:

(b) (5)

## BACKGROUND:

PFASs were used to manufacture certain types of Aqueous Film Forming Foam (AFFF) used to extinguish flammable liquid fires (e.g., hydrocarbon fueled), such as fires involving jet fuel, gas tankers, oil refineries, and military fire training exercises. The DoD was the largest consumer of AFFF, particularly at Navy and Air Force installations.

The two most studied PFASs, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) were monitored primarily in large public drinking water systems as part of the Safe Drinking Water Act (SDWA) Unregulated Contaminant Monitoring Rule 3 (UCMR 3). This national monitoring effort identified PFOA and PFOS at levels of concern several DoD facilities across the country. A recent DoD inventory indicates that 75 DoD National Priorities List (NPL) sites have been potentially impacted. Sampling results at Federal Facility NPL sites have shown groundwater detections up to 2,000,000 parts per trillion (ppt).

In May 2016, the EPA Office of Water (OW) issued the lifetime Health Advisories (HAs) for PFOA and PFOS (70 ppt) and recommended that impacted drinking water systems consider additional treatment to remove the PFAS or the use of an alternative drinking water source. In June 2016, the Office of the Assistant Secretary of Defense directed DoD components to test DoD supplied drinking water for PFOA and PFOS, and to take certain actions if test results showed elevated concentrations of either compound.

While states typically have primacy for enforcing the Safe Drinking Water Act, at Federal Facilities, EPA has used Section 1431 of the Safe Drinking Water Act to address PFAS when EPA determines that the contamination presents, or may present, an imminent and substantial endangerment to public health and that the state and local authorities have not acted to protect public health.

- In July 2014, EPA Region 3 issued a Safe Drinking Water Act 1431 order to the Navy to address PFAS at the Naval Air Warfare Center, Warminster, PA.
- In May 2015, EPA Region 3 issued a Safe Drinking Water Act 1431 order to the Air Force at Naval Air Station Joint Reserve Base Willow Grove in Horsham, PA.
- In July 2015, EPA Region 1 issued a Safe Drinking Water Act 1431 order to the Air Force for the Former Pease Air Force Base in Portsmouth, NH.

Some DoD NPL sites where drinking water supplies are contaminated with PFASs have considerable community, local government, and Congressional attention. At some of these sites, DoD has been requested to treat drinking water in public drinking water systems to non-detectable limits for PFASs. EPA's Office of Water has provided technical assistance to DoD in these situations.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

#### Key concern(s):

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

#### MOVING FORWARD:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]

LEAD OFFICE/REGION: OW

OTHER KEY OFFICES/REGIONS: OLEM, OECA, ORD,  
REGIONAL OFFICES

# POLLINATORS

## ISSUE SUMMARY:

(b) (5)



## UPCOMING MILESTONES:

- **Spring 2017** – EPA intends to provide its annual update to the White House on the status of pesticide reviews and on the number of bee kill incidents reported.

## BACKGROUND:

According to the USDA National Agricultural Statistics Service (NASS), the number of managed honey bee (*Apis*) colonies in the U.S. has declined from roughly 5.9 million in the 1940s to 2.6 million in 2016, representing a 56% decrease (Non-apis bees are native bees such as bumble bees. The honey bee is not native to the U.S.). These declines have been associated with a variety of factors, including pests, pathogens, pesticides, poor nutrition, bee management practices, and genetics. In response to these declines, in 2014, President Obama directed federal departments/agencies to form a task force to develop a national strategy to promote the health of honey bees and directed that EPA and USDA co-chair this effort. In 2015, the federal Pollinator Task Force issued the National Strategy to Promote the Health of Honey Bees and Other Pollinators. This document also contained the Pollinator Research Action Plan to address multiple uncertainties. In 2016, the Task Force released the Pollinator Partnership Action Plan, identifying opportunities for the government to work collaboratively with states, tribes, local governments, and the public to reduce pollinator losses.

Under the National Strategy, EPA commitments include:

- Using the best available science to support protective decisions;
- Making chemical-specific regulatory decisions that explicitly consider pollinator impacts in EPA's pesticide reevaluation and registration programs;
- Promoting risk management that creates space between pesticides that are acutely toxic, and bees
- Expediting review of new Varroa mite (honey bee pests) control products;
- Incorporating measures to encourage and enhance pollinator habitat at facilities, EPA-funded green infrastructure and Superfund remediation projects;

- Developing pollinator friendly landscapes at EPA-owned facilities; and
- Evaluating and mitigating pesticide impacts on monarch butterflies.

In November 2016 the EPA updated the Government Accountability Office (GAO) on EPA's response to GAO's investigation of what EPA and USDA are doing to protect bees. GAO recommended that EPA do more to assess the potential risks of pesticides to non-Apis bees. GAO also recommended that EPA do more to assess pesticide mixtures used by growers.

In mid-January 2017 the EPA issued a final acute risk mitigation policy which restricts the use of pesticides that are acutely toxic to bees. In addition, EPA also published preliminary pollinator risk assessments for the neonicotinoid pesticides clothianidin, thiamethoxam, and dinotefuran, as well as an update to the imidacloprid draft pollinator risk assessment that was issued in January 2016. The agency also hosted a workshop on assessing exposure to non-Apis bees.

#### KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☒ Other: Beekeepers & General Public

- (b) (5) [REDACTED]

#### MOVING FORWARD:

- (b) (5) [REDACTED]

LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS: OECA, ORD, OCHP

# PORTLAND, OREGON AIR TOXICS EMISSIONS (ART GLASS MANUFACTURING)

## ISSUE SUMMARY:

In early 2016, air monitoring data near a colored glass manufacturer in Portland, OR revealed high levels of hexavalent chromium, arsenic, and cadmium. The discovery, prompted by a U.S. Forest Service study, led the Oregon Department of Environmental Quality (DEQ) to develop new regulations for glass manufacturing which include the requirement that facilities install controls to reduce toxic emissions. The discovery of heavy metals in ambient air near homes, schools and daycares near this facility and other similar facilities prompted significant public outcry and the issue received significant press coverage and inquiries from elected officials.

## UPCOMING MILESTONES:

(b) (5)

[REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

## BACKGROUND:

**Issue History:** Hazardous metals are needed to make most colors of stained glass. Analysis of moss by the U.S. Forest Service indicated abnormally high concentrations of metals in moss growing near two art glass manufacturers, Bullseye Glass and Uroboros Glass. Oregon DEQ collected ambient air data in **October 2015** near Bullseye Glass and released the data at the end of **January 2016**. The data confirmed the following very high levels of metals: 150 times above the screening level for arsenic, 50 times above the screening level for cadmium, and an estimated 1,000 times above the screening level for hexavalent chromium. These metals, as well as lead, selenium, nickel, cobalt, and manganese are used to make colored glass. Bullseye has since installed controls under the OR State rule.

**EPA Involvement:** Oregon DEQ has the lead in responding to this issue. Since early 2016, EPA has provided technical and regulatory support to Oregon DEQ, including conducting inspections, participating in technical meetings, providing technical guidance and analysis, and providing air sampling equipment. EPA also responded to a written request from Oregon DEQ for clarification on the applicability of EPA's air toxics rule to Bullseye and Uroboros. Both companies immediately stopped using metals when the data was published and Bullseye restarted after installation of baghouses on their glass melting furnaces.

KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

**Key Concerns:** Concerns have been raised from both sides (industry and environmental groups). The community, media, and Congressional representatives have raised concerns that EPA's rules have a "loophole" for colored glass manufacturing resulting in dangerous emissions in communities. Others have also raised concerns that our efforts to clarify our regulations are shifting policy and causing undue hardship to the industry.

MOVING FORWARD:

(b) (5)  
[Redacted text block containing multiple lines of blacked-out content]

LEAD OFFICE/REGION: REGION 10

OTHER KEY OFFICES/REGIONS: R3, R5, OCIR,  
OAR/OAQPS, OECA

# PORTLAND, OREGON, HARBOR SUPERFUND SITE

## ISSUE SUMMARY:

The Portland Harbor Superfund Site is in the implementation/enforcement phase of the process. According to agreements with members of the Oregon Congressional delegation, the cleanup decision (Record of Decision) was signed by EPA's current Administrator in January 2017. (b) (5)

## UPCOMING MILESTONES:

(b) (5)

## BACKGROUND:

**Recent EPA Work:** On June 8, 2016, EPA issued the Proposed Plan for public comment. EPA received over 5,300 comments from community, environmental groups, Tribes and business groups, 90% of which supported a more aggressive remedy, one which removes more site contamination than the preferred alternative. On January 6, 2017, EPA issued the Final Record of Decision for the Portland Harbor Superfund Site; the ROD includes a combination of dredging, capping, enhanced natural recovery, natural recovery, and institutional controls to address contaminated sediments, surface water, and river banks throughout the site.

**Background:** The site encompasses a 10-mile stretch of the Willamette River located just downstream of the downtown area of Portland, OR. The majority of the public health risk is associated with consumption of fish contaminated with PCBs. The most predominant contaminants in sediments and riverbanks are carcinogenic PCBs, polycyclic aromatic hydrocarbons (PAHs), dioxins, and furans and breakdown products of DDT. EPA and Oregon Department of Environmental Quality began studying the site as a potential Superfund site in 1997. EPA added Portland Harbor to the National Priorities/Superfund List in 2000.

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

- Senators Ron Wyden and Jeff Merkley, Representatives Earl Blumenauer and Suzanne Bonamici
- Oregon Department of Environmental Quality
- The Confederated Tribes of the Yakama Nation, The Confederated Tribes of the Grand Ronde Community of Oregon, The Confederated Tribes of Siletz Indians, The Confederated Tribes of the Umatilla Indian Reservation, The Confederated Tribes of the Warm Springs Reservation of Oregon, The Nez Perce Tribe
- The National Oceanic and Atmospheric Administration

- The U.S. Department of the Interior (National Marine Fisheries Service and U.S. Fish and Wildlife Service) and the Oregon Department of Fish and Wildlife
- City of Portland, Port of Portland
- Environmental organizations (Audubon, Willamette Riverkeeper), Community Advisory Group

MOVING FORWARD:

- (b) (5)

- 

- 

LEAD OFFICES/REGION: OLEM, OECA, OGC, REGION 10



# PUERTO RICAN LANDFILLS

## (WIDESPREAD RCRA NON-COMPLIANCE)

### ISSUE SUMMARY:

The majority of the 29 municipal solid waste landfills operated in the Commonwealth of Puerto Rico (Commonwealth) are out of compliance with EPA's minimum national criteria for municipal solid waste landfills and are near or beyond capacity. This has led to growing concerns about Zika virus, seepage of contaminated leachate into groundwater, polluted stormwater runoff, and similar threats to public health and the environment. The budget crisis in Puerto Rico has made it very difficult for municipalities to properly address these concerns. (b) (5)

[REDACTED]

### UPCOMING MILESTONES:

(b) (5)

[REDACTED]

### BACKGROUND:

A number of the landfills are out of compliance with EPA's minimum national criteria for municipal solid waste landfills (40 CFR Part 258) and are also not covered by EPA legal agreements that require engineering and environmental controls. To date, EPA has legal agreements in place to close 12 of the Puerto Rico landfills and is continuing to assess the other landfills and develop legal agreements where appropriate.

Legal obligations or public commitments: The Commonwealth has primary responsibility to ensure municipal landfills meet requirements of the federal Resource Conservation and Recovery Act (RCRA). EQB has primary responsibility for regulating solid waste landfills in the Commonwealth. In 1994, EPA granted federal approval to EQB to administer the program, indicating that its municipal landfill permitting program adequately reflected federal landfill criteria.

(b) (7)(A), (b) (7)(E), (b) (5)

[REDACTED]

(b) (7)(A), (b) (5), (b) (7)(E)

Most recently, in September 2016, the EPA signed Orders on Consent with two municipalities, Arroyo and Cayey, which include required steps to improve operations and plan for closure of their landfills. Additionally, the EPA has required the 12 Puerto Rico landfills under legal agreements to implement mosquito/Zika control plans, and EQB has required, in coordination with EPA, that the remaining landfills also implement such plans. To date, 15 landfills have implemented mosquito/Zika control plans.

Major challenges, concerns, and sensitivities: (b) (5)

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

#### KEY EXTERNAL STAKEHOLDERS:

- |  |   |   |                                 |   |   |
|--|---|---|---------------------------------|---|---|
| <input checked="" type="checkbox"/> Congress | <input checked="" type="checkbox"/> Industry          | <input checked="" type="checkbox"/> States  | <input type="checkbox"/> Tribes | <input checked="" type="checkbox"/> Media | <input type="checkbox"/> Other Federal Agency |
| <input checked="" type="checkbox"/> NGO      | <input checked="" type="checkbox"/> Local Governments | <input checked="" type="checkbox"/> Other ( <u>Puerto Rico Limpio &amp; Green Latino (environmental advocacy groups))</u> |                                 |   |   |

There is growing Congressional interest in this issue. EPA has provided written responses or briefings for Representatives Ross (FL), Gutierrez (IL), Grijalva (AZ); Senator Menendez (NJ), and the Bi-partisan Congressional Task Force on Economic Growth in Puerto Rico. The primary concern is whether EPA is doing all it can to address the landfills in Puerto Rico and whether EPA should “take over” the administration of the solid waste management program. (b) (5)

MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: REGION 2

OTHER KEY OFFICES/REGIONS: OLEM

# Renewable Fuel Standards

## ISSUE SUMMARY:

EPA is required to implement the Renewable Fuel Standard (RFS) program established by Congress in the 2005 Energy Policy Act and again in the 2007 Energy Independence and Security Act. This requires that an ongoing series of actions be taken, including setting annual standards, determining lifecycle greenhouse gas (GHG) emission assessments for new fuels/production processes/feedstocks (pathways), ensuring program compliance, and implementing regulatory changes on an as-needed basis to maintain and enhance the program.

## UPCOMING MILESTONES:

- **Early 2017** - Renewable Enhancement and Growth Support (REGS) - EPA has proposed updates to the RFS and related fuels regulations to better align our standards with the current state of the renewable fuels market and to promote the use of ethanol and non-ethanol biofuels. For example, the proposal would update regulatory definitions, provide an approach to manage the use of “biointermediates” in the program, and establish new biofuel pathways under the program. The REGS rule proposal was published in November 2016 and the public comment period has been extended to February 16, 2017.
- **Early 2017** – EPA is seeking public comment on our proposal to deny several petitions requesting a change in the point of obligation (from petroleum refiners/importers to fuel blenders) for the RFS program. The public comment period has been extended to February 22, 2017.
- **Ongoing** - Litigation on the 2014-16 final volumes rule; oral arguments have yet to be scheduled.
- **May 2017** - 2018 Annual Standards Proposed Rule (enables statutory deadline for final rule by Nov 30, 2017).
- **Ongoing** - Issue decisions on small refinery hardship petitions for 2016 (Jan 2017), and legal challenges to previous decisions (Nov 2016).

## BACKGROUND:

- The purposes expressed for the program by Congress are to reduce GHG emissions and improve energy security by increasing the amount of renewable fuels in the transportation fuel pool every year.
- The program was established by statute, and it is a mandatory/binding program that affects multiple stakeholders in the transportation fuel sector.
- The statute established four categories of biofuels, each with differently lifecycle greenhouse gas emission thresholds. Cellulosic biofuel, for example, must have 60% lower lifecycle GHG emissions relative to petroleum-based fuel in order to qualify under the program.
- EPA has been implementing the program since 2006. The 2014 and 2015 standards were delayed, prompting a 3-year (2014-16) annual standard setting rulemaking on which EPA has been sued by most major stakeholders over EPA’s use and interpretation of the law’s waiver provisions. The results of that court case (decision expected late 2017) could have a major impact on the program.
- In addition to specific regulatory actions that must be taken under the program, implementation of the RFS program includes on-going work related to: pathway approvals, third-party quality assurance program

- Renewable Identification Number (RIN) verification, facility registrations, upgrades to the EPA moderated transaction system (EMTS) for RIN transactions, assessment of program compliance, increasing program and RIN market transparency, and ongoing support of enforcement actions.
- The RFS program affects a very large segment of our economy, from agriculture to petroleum, supply and distribution of feedstocks and fuels, to renewable fuel production, to the automotive industry. These ripple effects on our economy and environment mean multiple stakeholders have an interest in the program, and those interests are often at odds with each other. Most EPA actions on the RFS program, therefore, are controversial in nature.

## KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress
 ☒ Industry
 ☒ States
 ☐ Tribes
 ☒ Media  
☒ Other Federal Agencies: USDA and DOE
 ☒ NGO
 ☐ Local Government  
☒ Other: Foreign Countries (Brazil, Indonesia, Malaysia)

In general, stakeholders are concerned about whether the standards are too high or too low, whether barriers to greater volumes exist or can be removed, and whether the analytical basis for our rules is accurate.

- (b) (5) [REDACTED]  
[REDACTED]
- [REDACTED]  
[REDACTED]  
[REDACTED]
- [REDACTED]  
[REDACTED]
- [REDACTED]  
[REDACTED]  
[REDACTED]
- [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

## MOVING FORWARD:

- (b) (5)

LEAD OFFICE/REGION: OAR

## OTHER KEY OFFICES/REGIONS:

# RESTORATION OF THE CHESAPEAKE BAY

## ISSUE SUMMARY:

Based on the findings of the midpoint assessment, and using a new version of the Chesapeake Bay Program (CBP) partnership's decision support tools which incorporates the latest science and data, the jurisdictions (Virginia, Maryland, Pennsylvania, Delaware, West Virginia, New York and the District of Columbia) are due to submit their draft Phase III Watershed Implementation Plans (WIPs) by June 2018 and final Phase III plans by the end of December 2018. Many important decisions related to the development of these WIPs will be made in 2017.

## BACKGROUND:

Despite extensive restoration efforts during the prior 25 years, the decision to develop the [Chesapeake Bay Total Maximum Daily Load](#) (Bay TMDL) was prompted by insufficient progress and poor water quality in the Chesapeake Bay and its tidal tributaries.

The decision was made by the Chesapeake Executive Council, which is composed of the Governors of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia, the Mayor of the District of Columbia, the Chair of the Chesapeake Bay Commission and the Administrator of EPA on behalf of the federal government.

The Bay TMDL was established in 2010 with three phases of implementation planning and expectations for all pollution control measures needed to fully restore the Bay and its tidal rivers to be in place by 2025. A midpoint assessment is underway to determine progress toward having practices in place to achieve 60 percent of necessary pollution load reductions by the end of 2017.

The Bay TMDL was also developed to respond to consent decrees in Virginia and the District of Columbia and a memorandum of understanding in Maryland from the late 1990s. The CBP determined by 2007 that voluntary efforts would not adequately restore Bay water quality by 2010. In 2008, after much further discussion and consultation, the Bay jurisdictions asked EPA to establish a Bay-wide TMDL by 2010. The jurisdictions all cooperated with EPA in the TMDL's development.

**Bay TMDL:** The Bay TMDL includes accountability features aimed at guiding actions to restore clean water in the Bay and the region's streams, creeks and rivers in order to meet established Bay water quality standards. The TMDL identifies the necessary pollution reductions from major sources of nitrogen, phosphorus and sediment across the Bay jurisdictions and sets a "pollution budget" to meet water quality standards. Specifically, the TMDL identifies a 25 percent reduction in nitrogen, 24 percent reduction in phosphorus and 20 percent reduction in sediment. The jurisdictions' expectations for the TMDL are that all pollution control measures needed to fully restore the Bay and its tidal rivers are in place by 2025. The jurisdictions' expectations are that practices be in place to achieve 60 percent of the overall nitrogen, phosphorus and sediment reductions by 2017.

The TMDL was shaped by an extensive two-year public involvement effort and, in large part, by the jurisdictions'

final Phase I WIPs. The Phase I WIPs detailed how and when the jurisdictions would meet pollution allocations and the Phase II WIPs described the initial strategies to meet the 2017 goal.

The jurisdictions will design their Phase III WIPs in 2017 to provide additional detail of restoration actions beyond 2017 aimed at meeting the 2025 goals. Two-year milestones outline near-term restoration commitments. The goals of the Bay TMDL are also built into the 2014 Chesapeake Bay Watershed Agreement signed by the members of the Chesapeake Executive Council.

In the most recent evaluation of jurisdictions' milestones, evaluators found Pennsylvania is on track to meet its 2017 state-wide sediment target but is off track for phosphorus and is significantly behind in meeting its nitrogen target. Pennsylvania will need to place considerably greater emphasis on the agriculture and urban sectors to address nitrogen and phosphorus to meet its WIP and Bay TMDL commitments by 2025. In early 2016, Pennsylvania submitted a short-term plan to get back on track. While Pennsylvania has started to implement its plan, the anticipated reductions from this plan are not adequate to meet the goals.

The water quality goals of the TMDL are also incorporated into the [2014 Chesapeake Bay Watershed Agreement](#) (2014 Agreement), which was signed by the Chesapeake Bay Commission, the Bay jurisdictions and EPA on behalf of all federal agencies. Other goals in the 2014 Agreement address the full array of ecosystem restoration needed to restore and protect the Chesapeake Watershed, including fisheries, habitat, land conservation and public access goals, and more. The Chesapeake Bay Program has been working to restore the Chesapeake Bay watershed since signing their first Agreement in 1983.

In **October 2016**, EPA, USDA, and Pennsylvania jointly developed a strategy to accelerate progress toward necessary reductions in nutrient and sediment in targeted areas of the state. This strategy augments EPA's ongoing commitment to provide assistance and oversight throughout the implementation of the Bay TMDL. A long-term plan will be required to ensure that PA meets its 2025 pollution reduction goals. It is clear Pennsylvania will not meet the 2017 reduction goals because the primary source of its nitrogen, phosphorus and sediment pollutants is the unregulated agriculture sector. An intensified effort is underway, with increased funding from the state, the U.S. Department of Agriculture (USDA) and the U.S. Environmental Protection Agency (EPA), to accelerate the rate of implementation of best management practices to reduce nutrient pollutant loads in Pennsylvania.

Midpoint Assessment: The Bay TMDL calls for an assessment in 2017 to review progress toward meeting the nutrient and sediment pollutant load reductions necessary for Bay restoration. This midpoint assessment will measure the Bay jurisdictions' progress towards meeting the 2017 goal of having practices in place to achieve 60 percent of the necessary reductions compared to 2009. As part of this assessment, the Chesapeake Bay Program partnership is reviewing the latest science, data and decision support tools used to measure progress. The intent is to strengthen the partnership's decision support capabilities to optimize the jurisdictions' Phase III WIPs. The Phase III WIPs will provide information on what actions the jurisdictions intend to implement between 2018 and 2025, working with local governments to meet the Bay TMDL restoration goals.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Governments      ☐ Other: Describe

Pennsylvania agriculture sector shortfalls, Delays in implementation of the WIPs, Reductions in funding for implementation, and Potential for renewed legal challenges.

#### MOVING FORWARD:

The short-term strategy jointly developed with Pennsylvania, USDA and EPA to accelerate progress toward needed nutrient and sediment reductions in targeted areas of the state is welcomed and praised by both the agricultural community and environmental advocacy groups. It is critical that support for this funding remain in place moving forward. A long-term strategy will need to be developed to meet 2025 goals.

Each of the Bay jurisdictions supports the Bay TMDL midpoint assessment process and is developing strategies to engage and involve local governments and other affected communities to ensure the Bay TMDL considers their concerns while working toward achieving the water quality standards required for the Chesapeake Bay and its tributaries. Stable funding and ongoing legal counsel / support is essential to the success of restoring this national treasure.

LEAD OFFICE/REGION: R3/CBPO

OTHER KEY OFFICES/REGIONS: R3/WPD



# RISK MANAGEMENT PROGRAM RULE

**ISSUE SUMMARY:** The Risk Management Program (RMP) applies to all stationary sources with chemical processes that use more than a threshold quantity of a regulated substance. There are over 12,000 such facilities. EPA is preparing to finalize revisions to the RMP regulations to improve chemical process safety, assist local emergency authorities in planning for and responding to accidents, and improve public awareness of chemical hazards at regulated sources.

## UPCOMING MILESTONES:

- **January 2017** - Publication of the final rule in the Federal Register. The final rule was signed by the EPA Administrator on December 21, 2016, and published in the Federal Register on January 13, 2017.

## BACKGROUND:

When Congress passed the Clean Air Act Amendments of 1990, Section 112(r) required EPA to publish regulations and guidance for chemical accident prevention at facilities using substances that posed the greatest risk of harm from accidental releases. Regulations promulgated in 1996 were built upon existing industry codes and standards and required companies of all sizes that use certain listed regulated flammable and toxic substances to develop a Risk Management Program, which includes, in short, a hazard assessment, a prevention program, and an emergency response program.

While most chemical plants are operating safely, RMP data reflect that, in the recent 10-year period, from 2004 through 2013, there were 1,517 reportable accidents, 473 of which had off-site impacts. The reportable accidents were responsible for 58 deaths, 17,099 people were injured or sought medical treatment, almost 500,000 people evacuated or sheltered-in-place, and property damages totaled over \$2 billion.

Recent catastrophic chemical facility incidents in the U.S., including the explosion that occurred at the West Fertilizer facility in West, Texas, on April 17, 2013, and killed 15 people, were followed by the issuance of Executive Order (EO) 13650, *Improving Chemical Facility Safety and Security*, on August 1, 2013. The May 2014 Report for the President, [Actions to Improve Chemical Facility Safety and Security – A Shared Commitment](#), summarized interagency progress in and plans for the implementation of EO 13650. Modernizing the RMP rule was identified as one of the top priorities to improve chemical facility safety and security. The EO directed the EPA and several other federal agencies, including DHS and OSHA, to identify ways to improve operational coordination with state, local, tribal, and territorial partners; to enhance federal agency coordination and information sharing; to modernize policies, regulations, and standards to enhance safety and security in chemical facilities; and to work with stakeholders to identify best practices to reduce safety and security risks in the production and storage of potentially harmful chemicals.

EPA's final RMP rule revisions include several changes to the accident prevention program requirements, including an additional analysis of safer technology and alternatives as part of the process hazard analysis, incident investigation root cause analysis, independent third-party auditing at facilities, enhancements to the emergency

preparedness requirements, increased public availability of chemical hazard information, and several other changes to certain regulatory definitions and data elements submitted in risk management plans. These final amendments seek to improve chemical process safety, assist local emergency authorities in planning for and responding to accidents, and improve public awareness of chemical hazards at regulated sources.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☐ Other: \_\_\_\_\_

In response to the proposed rule, LEPCs and local emergency responders' concerns focused on the burden associated with coordination activities and participation in exercises. NGOs raised concerns about inherently safer technologies, and industry opposed safer alternatives analyses and third party audits and raised security concerns with the information availability provisions.

#### MOVING FORWARD:

The Office of Land and Emergency Management will lead follow up on implementation of the RMP rule. EPA is currently planning to conduct outreach to key stakeholders and to revise guidance documents and develop new guidance documents, as needed.

LEAD OFFICE/REGION: OLEM      OTHER KEY OFFICES/REGIONS: OP, OGC, OECA, ORD

# ROLE OF SCIENCE IN DECISION-MAKING

## ISSUE SUMMARY:

EPA science and research provides the strong, scientific foundation that informs the Agency's work to protect human health and the environment. Environmental policies, decisions, and emergency response must be grounded, at a most fundamental level, in sound, high quality, transparent science.

## UPCOMING MILESTONES:

EPA's Office of Research and Development (ORD) is an international leader in providing science to support responses to long-term, complex environmental challenges and environmental emergencies. EPA depends on the deep bench of ORD scientists to inform timely decisions that impact the lives of all Americans. Examples include:

- **Flint:** ORD scientists have played a critical role in guiding EPA's response to the events in Flint, MI, by providing expertise on the Flint Safe Drinking Water Task Force; making key recommendations to improve drinking water quality; interpreting water sampling data, and informing risk communication materials. ORD experts will continue to serve on the Flint Safe Drinking Water Task Force and provide technical expertise as needed.
- **Lead and Copper Rule:** EPA is revising the Lead and Copper Rule to protect public health by minimizing lead and copper levels in drinking water. ORD is playing a key role in ensuring that strong science supports the proposed improvements. (b) (5)
- **Fish Consumption Advice:** ORD science was key to developing a robust and public health approach for updating advice about consuming fish based on its mercury content. This effort, led by EPA's Office of Water and done in collaboration with the Food and Drug Administration, is an advance for public health protection.
- **Public Health Leadership:** ORD scientists have exhibited strong leadership in advancing public health for the Agency, including developing ongoing partnerships with outside public health organizations. These relationships will strengthen the Agency's science and help advance EPA's mission to protect public health.
- **Computational Toxicology:** ORD is an international leader in computational toxicology. With a dedicated computational toxicology center, ORD has led efforts to transform toxicity testing using modern molecular techniques that do not rely on traditional animal testing. In 2015, EPA announced a "pivot" for the Endocrine Disruption Screening Program to move away from lower throughput tests to newer approaches.
- **Human Health Risk Assessment:** ORD develops health assessments to inform public health decisions and leads efforts to coordinate on risk assessment issues and advance approaches. (b) (5)

## BACKGROUND:

ORD science has played an integral role in informing Agency decisions in the past. Example include:

- **Gold King Mine:** ORD science played a critical role in EPA's response to the 2015 inadvertent release of 3 million gallons of acidic, mine-influenced waters from the Gold King Mine. ORD's fate and transport analysis report

describes the fate and transport of the plume of released material (where it went and what happened to it) (<https://www.epa.gov/goldkingmine/fate-transport-analysis>).

- **EPA Clean Water Rule and ORD Connectivity Report:** EPA's Clean Water Rule was largely informed by an ORD evaluation that advanced our understanding of how small or intermittent streams, wetlands, and other water bodies can affect larger water bodies such as rivers, lakes, estuaries, and oceans.
- **Ozone National Ambient Air Quality Standards (NAAQS):** In 2016, EPA tightened the health-based ozone standard. The scientific evidence needed to support this change came, in part, from ORD's Integrated Science Assessment. These new standards will result in significant health benefits for the nation.
- **Federal Response to Deepwater Horizon Oil Spill:** In 2010, the mobile offshore drilling unit Deepwater Horizon exploded. ORD scientists monitored air quality from open burns, measured VOCs and PAHs drifting onshore, and assessed environmental conditions for other air and water contamination. ORD studies provided the first comprehensive, standardized toxicology tests on oil dispersants available to respond to the spill.
- **Bristol Bay Assessment:** ORD scientists evaluated scientific information to assess the potential impact of large scale mining on the Bristol Bay watershed in Alaska, which supports the largest sockeye salmon fishery in the world, is home to 25 federally recognized tribal governments, and contains large mineral resources. This work informed EPA's decision to pre-emptively stop mine development in the watershed.
- **Libby Amphibole Asbestos:** In 2009, EPA announced a public health emergency at the Libby Superfund Site because of health impacts from asbestos contamination from the mining operations in the community. In 2014, EPA released a final health assessment for Libby Amphibole Asbestos which is a major part of the science informing decisions about managing risk from exposure to asbestos in this community.

#### KEY EXTERNAL STAKEHOLDERS:

- |  |   |   |  |   |  |
|--|---|---|--|---|--|
| <input checked="" type="checkbox"/> Congress | <input checked="" type="checkbox"/> Industry          | <input checked="" type="checkbox"/> States  | <input checked="" type="checkbox"/> Tribes | <input checked="" type="checkbox"/> Media | <input checked="" type="checkbox"/> Other Federal Agency |
| <input checked="" type="checkbox"/> NGO      | <input checked="" type="checkbox"/> Local Governments | <input checked="" type="checkbox"/> Other (name of stakeholder) <u>EPA Programs and Regions</u> |  |   |  |

- (b) (5) [REDACTED]
- [REDACTED]

#### MOVING FORWARD:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

# ROLE OF THE STATES

EPA's environmental responsibilities are established through environmental statutes which authorize EPA to develop federal regulations to implement these statutes. The Agency shares implementation responsibilities with states and tribes, including conducting activities such as permitting, monitoring, and enforcement. This paper provides a broad overview of our work with the states. For specific information on the individual states please refer to the state profiles. This includes the 50 states, the District of Columbia, and the territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and U.S. Virgin Islands), hereafter referred to as "states." Several federal environmental laws authorize EPA to treat eligible federally recognized Indian tribes in a similar manner (i.e., as a state) for implementing and managing certain environmental programs.

## APPROVAL OF STATES AND TRIBES TO IMPLEMENT ENVIRONMENTAL PROGRAMS

Most major pollution control laws [e.g., Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act] authorize the EPA to approve state and tribal governments to take significant programmatic responsibility for permitting, monitoring, and enforcement activities of the federal programs, upon their request. Programs that can be approved include water and air pollution, hazardous and solid waste, underground injection and drinking water.

Generally, EPA may only approve a state or tribal program if its program is equivalent or more stringent than the federal program. Approved states or tribes generally must have in place [laws and regulations that meet federal standards](#) and a [written agreement with EPA](#) describing program implementation responsibilities. An approved state or tribe has primary responsibility for implementing the specific environmental program, while EPA takes on an oversight role to assure effective state or tribal implementation. EPA also retains authority to monitor compliance and enforcement activities in approved states and tribes.

The EPA relies heavily on approved states and tribes to implement compliance and enforcement programs. For example:

- Forty-nine states, six territories and one tribe administer the Public Water Supply Supervision Program under the SDWA
- Forty-eight states and one territory are authorized to administer the RCRA hazardous waste program
- Forty-six states and one territory administer point source programs (National Pollutant Discharge Elimination System) under the CWA
- Every state and territory, as well as one tribe, administers Title V of the CAA, designed to regulate the largest sources of air pollution.<sup>1</sup>

While EPA is not able to authorize States or tribes to implement the Superfund program under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), most states have their own state superfund laws.

<sup>1</sup> U.S. Environmental Protection Agency Office of Inspector General, June 16, 2016, "FY 2016 EPA Management Challenges," 16-N-0206, available at <https://www.epa.gov/sites/production/files/2016-06/documents/20160616-16-n-0206.pdf>

## AGENCY ORGANIZATION

While many state and tribal agencies largely mirror EPA organizationally, each state and tribe is unique in its governance structure. Not all EPA programs have their corresponding state or tribal counterparts located in the state or tribal environmental agency. For example, some states have drinking water programs administered by the state health agency, and some states have pesticide programs run out of their agriculture agencies. In California and several other states, the air program is delegated to local air districts.

## STATE-EPA NEXUS

Day-to-day interaction between states, tribes and EPA occurs through EPA's ten Regional offices. These Regional political leaders and career staff are the primary "faces" of EPA for state or tribal agency staff, and work closely with them on programmatic and budget issues.

One way the shared mission of state, tribal and federal environmental programs occurs is with the assistance of [EPA's grants](#). On an annual basis, Congress authorizes and appropriates money for EPA's programs, most of which the agency passes on to states and tribes through grants. States and tribes work with their Regions to apply for the grant funds, and the Regions administer and oversee these grants. Some state programs rely heavily on EPA funding to carry out their mission; others have substantial additional sources of income such as the state's general fund and permitting fees.

States, tribes and EPA are increasingly thinking through ways to work collaboratively to set priorities, as state and federal budget constraints create challenges in supporting state and tribal efforts to administer environmental programs. Through the [E-Enterprise](#) Leadership Council, states, tribes and EPA are working collaboratively to simplify, streamline and modernize the business of environmental protection. Together we are developing tools and systems to streamline implementation, including a new platform that modernizes environmental transactions and provides access to web resources. Further, the [National Environmental Performance Partnership System](#) uses joint agreements and grants in order to focus EPA and state/tribal resources on the most pressing environmental problems while taking advantage of the unique capacities of each partner to help achieve the greatest environmental and human health protection. EPA then translates these expectations into two-year National Program Manager (NPM) Guidances to capture joint priorities, provide state/tribal flexibilities, and align grant work planning to the extent possible.

## STATE AGENCY LEADERSHIP

State agencies are typically headed by a Secretary, Commissioner, or Director who is appointed by the Governor (and in some states, confirmed by the state legislature or other governing body). [The Environmental Council of the States](#) is a nonpartisan, non-profit association of the state and territorial environmental agency leaders. EPA has a healthy relationship with ECOS and the state leaders. Increasingly, EPA is also working with ECOS members' counterparts in the state public health agencies through [The Association of State and Territorial Health Officials](#).

## STATE MEDIA ASSOCIATIONS

Through EPA's program offices, the agency also interacts frequently with the "media associations," which is a term EPA uses to refer to air associations ([NACAA](#) and [AAPCA](#)), water associations ([ACWA](#), [NACWA](#), and [ASDWA](#)), and land association ([ASTSWMO](#)). There are no national organizations that serve as counterparts to other major EPA offices, for example for compliance and enforcement matters, or for toxics or chemicals. Through these various associations, EPA and states are able to collaborate on a more granular level, to address regulatory and compliance needs and challenges, identify training needs, and share information and best practices.

## STATE PERSPECTIVE

Common areas of concern for the states, regardless of the administration, typically include issues related to preemption, unfunded mandates, budgets, cooperative federalism, and burden reduction.



# ROLE OF THE REGIONS

EPA executes its mission through an organizational structure that includes Headquarters (HQ) offices in Washington, DC, and Research Triangle Park, NC, and 10 regional offices nationwide. The 10 regional offices are located in Boston, MA (Region 1), New York, NY (Region 2), Philadelphia, PA (Region 3), Atlanta, GA (Region 4), Chicago, IL (Region 5), Dallas, TX (Region 6), Lenexa, KS (Region 7), Denver, CO (Region 8), San Francisco, CA (Region 9) and Seattle, WA (Region 10). There are also 34 labs in 26 cities that report to either the Office of Research and Development (ORD) or the region.

Each region is headed by a political Regional Administrator (RA) and a career Deputy Regional Administrator (DRA). In some regions there is also an additional political appointee who serves as a Chief of Staff or a Senior Policy Advisor. During an Administration change it is common for some new RA appointments to take up to one year. The RA recruitment and selection process varies among regions, however, it always involves Congressional Delegations for states in the respective regions. In the absence of a permanent RA, the DRA typically serves as Acting RA. The career regional workforces range in size across the regions, from 494 employees in Region 7 to 1,064 employees in Region 5.

Most of the Agency's statutory oversight and implementation work takes place in regional offices with states and tribes. Regions work with state partners on state implementation plans designed to attain and maintain health-based air quality standards and water quality standards; air, water and waste permit programs; and the cleanup of hazardous waste sites. Regional staff routinely undertake field sampling, conduct inspections and collect data for analysis to aid in implementing decisions. Much of EPA's enforcement work, from investigation through case negotiation and final settlements (injunctive relief and civil penalties) also occurs in the regions. Examples of recent regional decisions made in consultation with HQ include: GHG permitting program in Texas; Everglades water quality permitting in Florida; Final Rule establishing new eastern Long Island Sound dredged material disposal site in Connecticut and New York; Superfund cleanup decisions for GE-Housatonic site in Connecticut and Massachusetts and Passaic site in New Jersey.

Regional offices are the face of EPA for the public, as well as the Agency's eyes and ears on the ground. The RA and DRA are charged with maintaining robust relationships with local, state and tribal governments (environment, public health, agriculture, and oil and gas agencies), partners and stakeholders. Over the past 4 years, in particular, RAs have joined HQ senior managers as active participants at meetings of the Environmental Council of the States (ECOS). Also, in close coordination with HQ-Office of Congressional and Intergovernmental Relations (OCIR), RAs often interact directly with members of Congress and their staff, both in Washington, D.C. and in the Members' home districts.

Regional staff are the Agency's points of contact for regulatory matters affecting stakeholders in their Regions. They are also our ambassadors for key programs like environmental justice and community-based work, voluntary programs (e.g., Energy Star, Water Sense), as well as cross-cutting and cross-media work.

Regions notify HQ of emerging and sensitive issues, such as polychlorinated biphenyls in schools, and lead in drinking water. They are usually first to learn of these issues and formulate responses. The Agency's emergency responders, the On-Scene Coordinators (OSCs), are based in the regions. They provide the experienced network to respond to regional incidents.

Examples of major incidents include the terrorist attacks on 9/11, Superstorm Sandy, and Hurricane Katrina. For larger incidents, multiple regions may deploy OSCs.

Given the size and diversity of the country, local needs and national consistency can create tension that demands close coordination and communication between regions and HQ. Regularly scheduled calls and face-to-face meetings with Regions and Headquarters counterparts are common at all levels of management and the staff level to ensure this important coordination and communication occurs. Biweekly RA, DRA and Assistant Regional Administrators (ARAs)<sup>1</sup> calls, regular calls and meetings between the HQ National Program Managers (NPMs) and the regional program directors, and regular communication among the Regional Science & Technology community<sup>2</sup> are some examples.

The Agency's Lead Region System works to ensure the quality of agency decisions by providing an organized, consistent and effective regional role in all the major phases of Agency decision-making. Regional offices are assigned as the "lead region" generally for two years, for a National Program Manager (NPM). Lead regions are responsible for coordinating with the other nine regions on specific matters to identify and synthesize the viewpoints of all ten regions into a "regional view" that can be effectively factored into Agency decision-making. Regional staff also participate in the Agency's regulatory development process, providing on-the-ground experience that increases the rules' effectiveness. The FY17/18 Lead Regions by NPM can be found [here](#).

NPMs provide staff and funding to regions to implement the national programs. The NPMs set program direction for the regions through biennially updated NPM Guidance (NPMG) which contains specific activity and other goals called Annual Commitments. The NPMs work with the regions and OCFO throughout the budget process to establish the allocations for program funding. Minimal staff allocation changes have occurred over the last three years.

In addition to the national laboratories operated by ORD<sup>3</sup> and the NPMs<sup>4</sup>, each region has a laboratory which provides a wide range of analytical services to the Regions' air, water, pesticide, toxics, hazardous waste and enforcement programs. In keeping with the Agency's commitment to EPA-State partnerships, the geographically distributed system of ten regional labs directly supports the building of environmental monitoring and measurement capacity in state, local and tribal governments. Regional laboratories are expert in the translation of Agency requirements into practical protocols which can be adopted by the state agencies and local governments. To many in state and local government, the regional laboratories are the Agency's sole technical arm.

Each region also has a Regional Counsel (RC), which is a Senior Executive Service (SES) career position. The RC serves as the principal legal advisor to the RA and program managers, and manages an office of attorneys who provide legal advice to managers and legal representation for defensive litigation arising from Regional matters, in consultation with OGC. In Regions 2-7 and 9-10, the RC also supervises enforcement attorneys with responsibility for enforcement policy and legal representation for Regional enforcement matters, in consultation with OECA. These RCs report to the Assistant Administrator of OECA. In Regions 1 and 8, enforcement attorneys are co-located with other enforcement personnel, and they report through the Region's Enforcement Director. The Region 1 and 8 RCs report to EPA's General Counsel. Most of the FTE and accompanying salary dollars for the Offices of Regional Counsel are provided by OECA and OGC.

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<sup>1</sup> ARAs are responsible for administrative functions within the region (e.g., Budget, HR, IT, acquisitions and facilities).

<sup>2</sup> RS&T Directors provide applied science services and expertise.

<sup>3</sup> Research and Development Laboratories have primary responsibility for developing knowledge, assessments, and scientific tools that underpin decisions about EPA's protective standards, risk assessments, and risk management decisions.

<sup>4</sup> National Program Laboratories have primary responsibility for implementing legislative mandates to develop and provide specific programs that support decisions for regulations, compliance, and enforcement at a national level.



# San Francisco Bay Delta (Water Quality-Aquatic Life)

## ISSUE SUMMARY:

The San Francisco Bay Delta watershed, the largest estuary on the west coast of North America, provides most of the municipal and irrigation water for the nation's largest state economy and is the lifeblood of the coastal ecosystem and fishery. Diversions of natural flow have negatively affected the aquatic ecosystem; ongoing drought conditions and contaminants continue to exacerbate these impacts, limit water supply for all uses, and increase conflicts about the best use of scarce fresh water. More than 80% of native fishes are considered vulnerable to extinction. EPA's resources to achieve water quality improvements, increase aquatic ecosystem function, and sustain public water supply protection are limited and disproportionately low relative to other watersheds across the country.

## UPCOMING MILESTONES:

- In spring 2017, California expects to adopt water quality standards (WQSs) for the South Delta and San Joaquin Rivers and tributaries that include new and modified flow standards as part of a phased process to increase protection of aquatic life in the watershed.
- No earlier than summer 2017, California expects to complete its administrative approval process for the adopted WQSs and formally submit them to EPA for review and approval or disapproval under the Clean Water Act (CWA). The EPA action is required before any new or revised state WQSs can take effect under the CWA.

## BACKGROUND:

**Concerns:** More than 80% of the native fishes are considered vulnerable to extinction and more than 10% of all fish species in the Bay Delta, including formerly abundant commercial and recreational fisheries, have been reduced to the lowest population levels on record. Water quality is impaired by industrial, mining, and agricultural contaminants. Aquatic resources have been impacted by stressors including water diversions, reduced freshwater flow, aquatic habitat loss, water pollution, and invasive species. Six years of extreme drought conditions have left small rural communities without running water, eliminated water supply for some agricultural users, caused rapid expansion of toxic algae, decreased population estimates for two forage fish species to near zero and caused a 95% loss in Chinook salmon juveniles for three straight years.

**EPA Involvement:** EPA's Bay Delta program focuses on improving water quality through regulatory and voluntary CWA efforts and the watershed approach. The program includes: supporting the San Francisco Estuary Partnership (SFEP), a National Estuary Program established in 1988 under CWA §320; financing restoration of the Bay via an annual \$4 - \$5M competitive grant program (the San Francisco Bay Water Quality Improvement Fund); and collaborating with a wide range of partners to advance aquatic resource protection and water supply reliability in the Delta through implementation of the EPA SF Bay-Delta Action Plan developed in 2012.

The EPA SF Bay-Delta Action Plan identifies the most recent coordinated federal commitments to support the state and seven priority actions for improving the aquatic ecosystem and water supply reliability. The priority actions include updating water quality standards for aquatic life, advancing habitat restoration, addressing contaminant

pollution control, and supporting California's process for improving water conveyance and water supply reliability through the proposed WaterFix project.

To address environmental challenges in Bay Delta, California is working to update its WQSs to protect native and migratory fish in two phases. Phase 1 will address WQS changes in the South Delta and San Joaquin River and tributaries; Phase 2 will address WQS changes in the Sacramento-San Joaquin Delta. California is expected to submit the Phase I WQSs to EPA in 2017 and consider adoption of Phase II WQSs in spring 2018.

**Early History:** For more than 30 years, EPA has been working with state and federal partners in the watershed to address concerns. Restoration projects funded by EPA have resulted in measurable water quality improvements and substantially improving aquatic habitat resources in the Bay.

In **1988**, EPA launched the SFEP and assisted in developing the first Comprehensive Conservation and Management Plan. In response to the **1987-92** drought and dramatic decline in fish populations, EPA worked with federal and state agency partners and stakeholders to develop new water quality standards to protect aquatic resources. These actions resulted in a short term recovery of fish populations. In the **early 2000s**, populations began to decline again as water diversions continued to rise. The next drought-driven disruption in water supply began in **2007**, causing fish populations to decline further, resulting in a two-year closure of a commercial salmon fishery, and effectively eliminating two species of forage fish. Today fish populations have not recovered and hover at historically low levels.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Governments      ☒ Other (name of stakeholder) Agricultural, irrigation, and municipal water districts

Water users may express concerns about the reliability of water supplies as regulatory agencies implement measures to reverse the collapse of the estuary's aquatic resources. NGOs and commercial and sport fishing organizations may be concerned about the inadequate efforts to shore up the fisheries. California may express concern that federal agencies are impinging on state prerogatives in water resource management.

#### MOVING FORWARD:

EPA will continue to support SFEP's implementation of its Comprehensive Conservation and Management Plan, now known as the San Francisco Estuary Blueprint. Recently updated, the Blueprint outlines 32 needed actions to be completed over the next five years to protect and restore the Estuary. EPA plans to continue providing grant funding to advance water quality improvement and aquatic habitat restoration in SF Bay.

For the Delta, EPA plans to continue advancing the priorities in the SF Bay Delta Action Plan. Most scientists recommend increasing aquatic habitat restoration and freshwater flows in rivers and through the Delta as the two most important actions for restoring aquatic life protection in the estuary. The challenge is to find the right balance between aquatic resource protection and consumptive uses.

EPA expects to commence the process of species consultation with federal resource agencies when California adopts the new Phase I WQSs, currently scheduled for spring 2017. Upon receipt of California's formal WQS submittal in later part of 2017, EPA is required by the CWA to approve or disapprove new or revised WQSs. This agency action will play a key role in improving the aquatic ecosystem in the watershed.

LEAD OFFICE: REGION 9

OTHER KEY OFFICES: OW/OECA

# SOCIAL COST OF GREENHOUSE GASES

## ISSUE SUMMARY:

Under Executive Order 12866, agencies are required “to assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.” The social cost of carbon (SC-CO<sub>2</sub>), which represents the monetized future damages from an incremental increase in carbon dioxide emissions in a given year, allows agencies to incorporate the social benefits of reducing carbon dioxide emissions into cost-benefit analyses of regulatory actions that have small, or marginal, impacts on cumulative global emissions.

(b) (5)

In January, the National Academy of Sciences, Engineering and Medicine will provide recommendations for future updates of the SC-CO<sub>2</sub> to ensure that the estimates continue to reflect the best available science, by releasing its report on *Assessing Approaches to Updating the Social Cost of Carbon*. (b) (5)

## UPCOMING MILESTONES:

- (b) (5)

## BACKGROUND:

The SC-CO<sub>2</sub> is defined for a given year as the present discounted value of the future damage caused by a 1-metric-ton increase in CO<sub>2</sub> emissions to the atmosphere in that year, or, equivalently, the benefits of reducing CO<sub>2</sub> emissions by the same amount. It is a comprehensive measure of climate change damages including, but not limited to, changes in net agricultural productivity, energy use, human health effects, and property damages from increased flood risk.

The SC-CO<sub>2</sub> allows the benefits of emission reductions to be compared to the costs of mitigation policies within benefit-cost analysis. The SC-CO<sub>2</sub> is used by agencies in the executive branch of the U.S. federal government in their analysis of regulatory actions that are subject to Executive Order 12866 which directs agencies “to assess both the costs and benefits of the intended regulation....” Prior to 2009, multiple Federal agencies, including EPA, began developing their own analyses of the SC-CO<sub>2</sub> as part of the rulemaking process. In November 2007, an agency was ordered by the courts to consider the SC-CO<sub>2</sub> in a rulemaking process. U.S. Ninth Circuit Court of Appeals remanded a fuel economy rule to DOT for failing to monetize CO<sub>2</sub> emissions, stating that “[w]hile the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero.”

In 2009, the Obama Administration launched a process to determine how best to monetize the net effects (both positive and negative) of CO<sub>2</sub> emissions and sought to harmonize a range of different SC-CO<sub>2</sub> values across multiple Federal agencies. The purpose of this process was to ensure that agencies were using the best available information and to promote consistency in the way agencies quantify the benefits of reducing CO<sub>2</sub> emissions, or dis-benefits from increasing emissions, in these regulatory impact analyses. A White House-led interagency working group (IWG) was convened in 2009, under the leadership of OMB and the Council of Economic Advisers (CEA), to develop a range of SC-CO<sub>2</sub> values using a defensible set of input assumptions that are grounded in the existing literature. The IWG published SC-CO<sub>2</sub> estimates for use in 2010, and updated them in 2013 to incorporate updated versions of models used in the peer-reviewed literature. In August 2016 the IWG published estimates of the social cost of methane (SC-CH<sub>4</sub>) and nitrous oxide (SC-N<sub>2</sub>O) that are consistent with the methodology underlying the SC-CO<sub>2</sub> estimates.

(b) (5)

In January 2016, the Academies released an interim report recommending against a near term update of the SC-CO<sub>2</sub> estimates within the existing modeling framework, and offered recommendations for how to enhance the discussion and presentation of uncertainty in the current estimates. In August 2016, the IWG issued revisions to the SC-CO<sub>2</sub> Technical Support Document incorporating these recommendations from the Academies. (b) (5)

The SC-CO<sub>2</sub> estimates have received considerable attention by a variety of stakeholders in recent years. Public input received through individual rulemakings, a 2014 OMB-provided comment period, and the academic literature has covered both scientific and policy issues associated with the estimation and valuation of climate change impacts as well as the process by which the IWG estimates were developed. The courts have also weighed in on the use of these estimates. Most recently, in August 2016, the Seventh U.S. Circuit Court affirmed the use of SC-CO<sub>2</sub> estimates in federal analysis, specifically supporting the consideration of global damage estimates in a DOE rulemaking.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☒ Industry    ☒ States    ☐ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☐ Local Government    ☒ Other: Other countries, esp. Canada

(b) (5)

#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OP

OTHER KEY OFFICES/REGIONS: OAR, OECA, OGC

# SPACE CONSOLIDATION

## ISSUE SUMMARY:

EPA, with GSA, regularly evaluates its real estate portfolio – both office space and laboratory facilities – in order to make cost effective recommendations for the future, ensure the efficient use of government resources and the long term sustainability of our facilities. Several real estate decisions need to be made in 2017.

## UPCOMING MILESTONES:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]

## BACKGROUND:

EPA has amassed considerable savings in rent and utilities over the past four years. EPA has released over 390 thousand square feet of office space nationwide, resulting in an annual rent avoidance of over \$14.7 million by consolidating offices. Further, efforts to improve the energy efficiency of EPA facilities have resulted in approximately 32.7 percent less energy used in FY 2015 than in FY 2003, an annual cost avoidance of \$5.9 million agency-wide. Using a national approach, engineering analyses and an office space standard, EPA will continue to respond to OMB's National Strategy for Real Property and Reduce the Footprint policy.

In 2015, EPA completed a comprehensive long-term evaluation of its laboratory facilities. The study included detailed engineering cost analyses, external benchmarking of laboratory occupant density and modeled savings projections. Recommendations from the evaluation resulted in the EPA vacating two laboratory facilities and the elimination of energy intensive laboratory work in two additional locations. In addition to this completed work, the agency has made the decision to vacate three additional laboratory facilities (work is in progress): the consolidation of the Region 4 laboratory in Athens, GA to the EPA-owned research laboratory in Athens; the consolidation of the Region 8 laboratory in Golden, CO to the National Enforcement Investigation Center Laboratory in Lakewood, CO; and the consolidation of the Willamette, OR research laboratory to the Corvallis, OR facility.

### Federal Triangle Complex Office Space

EPA headquarters employees are located in Federal Triangle Complex (Washington, DC), space leased from the GSA in the Ronald Reagan International Trade Center (Washington, DC) and commercially leased space at the Potomac Yard facility (Arlington, VA). (b) (5) [REDACTED]

(b) (5)

### Regional Laboratory Space

EPA has 10 regional laboratories, one located in each of EPA's 10 regions. The Region 4 (Athens, GA) and Region 8 (Golden, CO) laboratories are already undergoing local consolidation with other EPA labs. Three of the laboratory facilities are in EPA-owned space (Region 2 – Edison, NJ; Region 3 – Ft. Meade, MD; Region 10 – Manchester, WA) and one is in government-owned space (Region 5 – Chicago, IL). The remaining six laboratories are leased from commercial developers. Due to the high cost of leasing commercial laboratory space, for these four facilities, EPA is currently evaluating options that will preserve the laboratory functions, optimize the use of EPA's owned laboratory space and minimize costs. Decisions are required well in advance of lease expiration in order to allow sufficient time for moves and cleanup activities at vacated laboratories. (b) (5)

### Las Vegas Research Facility

The lease on the agency's laboratory facility in Las Vegas is expiring in 2020 and there is not an option for renewal. This facility includes both office and laboratory space. (b) (5)

### KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☐ Industry    ☐ States    ☐ Tribes    ☒ Media    ☐ Other Federal Agency  
☐ NGO    ☐ Local Government    ☒ Other (Local unions)

Local Unions are involved in moves and other significant office space modifications. Local media and may be concerned with changes or moves within particular areas. Congress may be concerned with moves of federal personnel.

### MOVING FORWARD:

- (b) (5)

LEAD OFFICE/REGION: OARM

OTHER KEY OFFICES/REGIONS: ORD, ALL REGIONS



# STRENGTHENING INTERNAL CONTROLS TO ADDRESS EMPLOYEE MISCONDUCT

## ISSUE SUMMARY:

While EPA has received Congressional and media attention for isolated occurrences of employee misconduct, the Agency has implemented new and more stringent policies and internal controls or procedures in order to address and prevent future occurrences of misconduct.

## BACKGROUND:

Below is a summary of the high-priority actions the Agency has taken to strengthen internal controls and to address and prevent isolated incidents of employee misconduct:

### **Anti-Harassment**

On November 20, 2015, EPA implemented EPA Order 4711 ("Procedures for Addressing Allegations of Workplace Harassment") to address incidents of harassment in the workplace and reaffirm that the Agency will not tolerate harassment of any kind. EPA managers attended in-person training delivered by the Equal Employment Opportunity Commission (EEOC).

EPA developed customized anti-harassment training based on EPA Order 4711, which is mandatory for non-supervisory employees and most contractors, and available as an additional optional training for EPA managers.

- There is also anti-harassment training specifically for EPA interns, delivered by the Office of General Counsel.

### **Administrative Leave**

In response to Congressional inquiries on EPA's use of excused absence, otherwise known as administrative leave, the Agency implemented HR Bulletin 16-001B ("Administrative Leave") on February 26, 2016. This policy places more stringent controls on the circumstances in which administrative leave may be granted and delegates to certain management officials the authority for approving administrative leave requests. It also provides that requests for administrative leave exceeding 10 cumulative workdays within 26 pay periods will be granted only when such leave is required for the orderly operation of the Agency and approved by the Assistant Administrator for the Office of Administration and Resources Management (or his/her designee).

### **Handling of OIG Investigations**

In response to Congressional reports regarding the Agency's relationship with the Office of the Inspector General (OIG), the Agency established biweekly meetings between OIG, Office of General Counsel and Office of Administration and Resources Management. These meetings have increased the efficiency with which the Agency addresses matters investigated by OIG. The improved relationship and coordination meetings have been recognized as a model for other agencies.

### **Financial Internal Controls**

In response to various OIG audits of employee financial misconduct, EPA put in place a number of internal controls in the areas of payroll, bonuses, travel, time and attendance, executive approvals and subsidized parking.

- In 2014, the Agency conducted an Internal Control Assessment to evaluate the effectiveness of the new controls that were put into place. The following eight areas were reviewed: Executive Payroll Approvals; Employee Departures and Payroll; Statutory Pay Limits; Parking and Transit Subsidy; Retention Bonuses; Travel Other than Coach Class Travel; Travel Reimbursements Above the Government Rate; and Executive Travel Approval.
- An Internal Control Assessment Report was issued on April 14, 2016, to monitor the Agency's continued progress. The report contains a preliminary analysis of the effectiveness of internal controls and identifies best practices across EPA. The report also provides recommendations to continue improvements, which the Agency has accepted. Examples of recommendations implemented include: 1) maintaining accurate lists of supervisors with travel approval authority; 2) prohibiting supervisors from approving travel for a peer or superior, unless a proper delegation exists to permit that action; and 3) monitoring the Agency's travel system, Concur, periodically to perform quality-control checks to ensure travel controls are working properly.

#### Quarterly Time and Attendance Anomaly Reports

Agency policy requires employees to enter and attest their time and attendance, and approving officials are required to approve electronic timecards in the PeoplePlus System. To ensure compliance with the Agency's time and attendance policy and procedures, a quarterly anomaly reporting requirement was established to strengthen internal controls over the time and attendance process. This quarterly reporting requirement requires written justifications be provided for exceptions to time reporting or approval procedures. The Office of the Chief Financial Officer validates the appropriateness of the stated justifications.

#### Transit Subsidy Program

In an effort to improve internal controls for Agency transit subsidy programs, the Agency initiated improved management controls and monitoring efforts. Improved management controls include:

- (b) (5) [REDACTED]
- Revision of the transit subsidy application in headquarters, requiring supervisor approval for transit subsidy.
- Monthly reconciliation of the transit subsidy participants and Office of Human Resources biweekly reports for separated employees.

#### KEY EXTERNAL STAKEHOLDERS:

- ☐ Congress    ☐ Industry    ☐ States    ☐ Tribes    ☒ Media    ☐ Other Federal Agency  
☒ NGO    ☐ Local Government    ☐ Other (name of stakeholder) \_\_\_\_\_

#### MOVING FORWARD:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

LEAD OFFICE/REGION: OARM

OTHER KEY OFFICES/REGIONS: OGC/OCFO



# SUMMARY OF SELECTED LITIGATION

## AIR AND CLIMATE ISSUES

### [Clean Power Plan \(Existing Power Plants\) and Carbon Pollution Standards \(New Power Plants\)](#)

In October 2015, EPA finalized carbon dioxide standards for existing power plants (Clean Power Plan) and for new power plants (Carbon Pollution Standards). Both rules were challenged by numerous parties. The Clean Power Plan (CPP) was stayed by the Supreme Court until the conclusion of litigation. The challenges to the CPP are fully briefed and oral argument was heard by the D.C. Circuit en banc on September 27, 2016. The challenges to the Carbon Pollution Standards are currently being briefed, with all parties' final briefs due on February 6, 2017. Oral argument in the Carbon Pollution Standards case has been scheduled for April 17, 2017.

### [Ozone NAAQS](#)

In October 2015, EPA revised the level of the primary and secondary Ozone NAAQS to 70 ppb from 75 ppb but retained all other elements of the prior standards. Challenges were brought in the DC Circuit, and the case is fully briefed. Oral argument is scheduled for April 19, 2017.

### [Oil and Gas New Source Performance Standards \(NSPS\) Litigation](#)

In 2012, EPA updated 1985 oil and gas NSPS and promulgated VOC standards for additional emission sources, including natural gas well completions following hydraulic fracturing. EPA further updated the NSPS in June, 2016 to require methane reductions and covering sources not previously regulated. Both actions were challenged in court. In an order dated January 4, 2017, the Court consolidated the challenges to both actions, but granted environmental plaintiffs' request to sever and hold in abeyance their challenge to the 2012 regulation and assigned it to a new docket. The Court further ordered the parties to submit, within 30 days of the order (February 3, 2017), a proposed format and schedule for the briefing of all the issues. Industry plaintiffs recently proposed that the parties seek to extend this deadline by 60 days. EPA is currently evaluating the proposed extension.

### [Startup, Shutdown, & Malfunction \(SSM\) Emissions State Implementation Plan \(SIP\) Call Litigation](#)

EPA promulgated the SIP Call June 2015, directing 36 states to address deficient SIP provisions applicable to emissions from sources during startup, shutdown, and malfunction which is currently being challenged in the DC Circuit. EPA filed its response brief on June 26, 2016. Oral argument is scheduled for May 8, 2017. States were required to submit SIP revisions in response to the SSM SIP Call by November 22, 2016.

### [Mercury and Air Toxics \(MATS\) Cost Rule](#)

In April 2016, EPA took final action in response to the U.S. Supreme Court decision in *Michigan v. EPA*, 135 S. Ct. 2699 (2015), which held that EPA must consider cost in evaluating whether it is appropriate and necessary to regulate coal- and oil-fired Electricity Generating Units (EGUs) under section 112 of the Clean Air Act (CAA). In the final supplemental finding, EPA concluded that a consideration of cost does not cause us to change our determination that regulation of hazardous air pollutant (HAP) emissions from coal- and oil-fired EGUs is appropriate and necessary and that EGUs are, therefore, properly included on the CAA section 112(c) list of sources

that must be regulated under CAA section 112(d). State and industry groups challenged the finding in the DC Circuit; EPA's response brief was due January 19, 2017. Oral argument has not yet been scheduled.

#### Texas & Oklahoma Regional Haze Litigation

EPA promulgated a rule addressing [regional haze](#) requirements for Texas and Oklahoma in January 2016. The rule partially approved and partially disapproved the regional haze SIPs submitted by Texas and Oklahoma, and included a Federal Implementation Plan (FIP) to limit sulfur dioxide emissions from Texas coal-fired EGUs to satisfy reasonable progress and long-term strategy requirements. Challenges were filed in the DC, Fifth, and Tenth Circuits. On July 15, 2016, a motions panel of the Fifth Circuit denied EPA's motion to dismiss or transfer to the D.C. Circuit and granted petitioner's motion to stay the rule. EPA moved for a voluntary remand of the rule on December 2, 2016, while the challengers cross-moved for summary vacatur of the rule on December 19, 2016. Briefing of the motions is ongoing. Pursuant to a Consent Decree (CD) EPA proposed a separate FIP for Texas to address Best Available Retrofit Technology (BART) requirements on January 4, 2017.

#### Murray Energy

Murray Energy and several other coal companies have sued EPA in Federal District Court for the Northern District of West Virginia alleging the Agency has failed to meet a mandatory duty imposed by CAA 321 to conduct certain employment evaluations. EPA does not believe CAA section 321 imposes a mandatory duty and has further argued that it meets any duty imposed by the section through the analyses conducted in the Agency's RIAs, EIAs, and other research. On October 17, the District Court concluded that CAA section 321 does impose a mandatory duty on EPA and that EPA has failed to meet that duty. The Court has ordered EPA to submit a plan and schedule for compliance by October 31. On January 11, 2017, the Court issued a final order on remedy. (b) (5)

### CIVIL RIGHTS

#### Title VI

CARE, *et al.* filed an Administrative Procedures Act suit in the Northern District of California against EPA alleging unreasonable delay in enforcing Title VI of the Civil Rights Act and EPA's implementing regulations. Plaintiffs seek declaratory and injunctive relief. In October 2016, Plaintiffs filed a motion for leave to file a second amended complaint. As of January 11, 2017, parties are awaiting the judge's ruling; once it is made, EPA will have seven days to file our dispositive motions.

### PESTICIDES AND TOXICS ISSUES

#### Endangered Species Act (ESA) Megasuit

The suit was originally filed in January 2011 by the Center for Biological Diversity in the Northern District of California and is on appeal to the 9th Circuit. The original suit challenged that EPA did not meet its obligations under the Endangered Species Act for more than 300 pesticides. The District Court dismissed most chemicals from the second amended complaint for lack of jurisdiction and the plaintiffs have appealed this ruling. (b) (5)

Briefing completed in July, 2015 and oral argument was held in May, 2016. A decision is expected any day.

#### Cyantraniliprole Registration

A challenge for failure to consult on ESA issues before issuing registration for cyantraniliprole was filed by the Center for Biological Diversity (CBD) in DC District Court raising the jurisdictional issue of whether ESA cases challenging pesticide registration decisions made after notice and comment should be heard in district courts or courts of appeal. (b) (5)

The District Court agreed with EPA that the case belongs in the Court of Appeals. CBD has appealed the jurisdictional ruling. The Court of Appeals will consider the jurisdictional issue at the same time it considers the underlying merits. Briefing of both the jurisdictional issue and the merits to the Court of Appeals was completed in August, 2016; oral argument is scheduled for March 6, 2017.

### SOLID WASTE AND EMERGENCY RESPONSE

#### Definition of Solid Waste Rule

Petitioners from both industry and environmental groups are challenging in the D.C. Circuit EPA's 2015 Definition of Solid Waste Rule promulgated under RCRA concerning how EPA addresses recycling. Oral argument was held on November 3, 2016.

#### Gold King Mine

New Mexico and the Navajo Nation have both filed complaints against EPA and a number of other parties (including EPA's contractor and former mine owners/operators) in the U.S. District Court for the District of New Mexico. The cases have been consolidated. Both complaints allege that EPA is liable under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as an owner, operator and transporter of the acid mine waste released before, during, and after the GKM incident that occurred on August 5, 2015, as well as seek a declaratory judgment for future costs. New Mexico's complaint includes a claim under Clean Water Act section 505(h) alleging that the Administrator's failure to enforce an effluent standard or limitation under the CWA in Colorado is having an adverse impact on New Mexico's waters. EPA's deadline to respond is currently stayed pending judgment on New Mexico's motion for leave to file an amended complaint, which would include new factual allegations against the Agency and add tort claims. (b) (5)

#### Coal Combustion Residuals (CCR)

Challenges were brought in the D.C. Circuit by industry and environmental groups to EPA's rule establishing requirements for management and disposal of utility coal ash (CCR). Petitioners claim that EPA lacks the authority to regulate inactive surface impoundments, that EPA failed to provide adequate notice of certain requirements and that EPA lacked a rational basis for excluding "legacy" surface impoundments (i.e., those at power plants that are no longer generating electricity). All briefs are filed; oral argument not yet scheduled.

#### CERCLA 108(b)

Several environmental groups sued EPA claiming unreasonable delay in issuing financial assurance regulations under [CERCLA 108\(b\)](#). A court order based on a joint motion of the parties sets forth a following schedule whereby (1) EPA

will sign a notice of proposed rulemaking on financial assurance requirements under CERCLA section 108(b) in the hardrock mining industry by December 1, 2016 and a notice of its final action on such regulations by December 1, 2017 and (2) EPA will sign a determination whether the agency will issue a notice of proposed rulemaking on financial assurance requirements under CERCLA section 108(b) in the (a) chemical manufacturing industry; (b) petroleum and coal products manufacturing industry; and (c) electric power generation, transmission, and distribution industry by December 1, 2016. The proposal and notice were signed on December 1, 2016, and published in the Federal Register on January 11, 2017.

#### Oil & Gas Wastes

Environmental Integrity Project sued EPA in the U.S. District Court for the District of Columbia under RCRA 2002(b) asserting EPA's mandatory duty to review and revise its subtitle D regulations to address oil and gas wastes. This case was settled on December 28, 2016, when the court entered a consent decree. The consent decree requires EPA, by March 15, 2019, to either (a) determine that revision of the existing federal regulations is not necessary, or, (b) propose revisions to the existing regulations, specifically pertaining to management oil and gas wastes. In the event that EPA issue a proposal, EPA must take final action on that proposal no later than July 15, 2021.

## WATER

#### Water Transfers Rule

The 2008 Water Transfers Rule (WTR) explains that "an activity that conveys or connects waters of the United States without subjecting the transferred water to intervening industrial, municipal, or commercial use" does not require a National Pollutant Discharge Elimination System (NPDES) permit. On March 28, 2014, the U.S. District Court for the Southern District of New York issued an opinion vacating in part and remanding to WTR. Oral argument on our appeal of this decision was held in December 2015. We await a decision from the Court of Appeals for the Second Circuit.

#### Clean Water Rule

In June 2015, EPA and the US Army Corps of Engineers issued a final rule clarifying the central definition of surface waters covered by Clean Water Act programs, the definition of "waters of the United States." This was immediately enmeshed in significant litigation in many district courts and multiple Courts of Appeals. The Sixth Circuit Court of Appeals was selected by lottery as the Court to hear all the Court of Appeals petitions, and stayed the rule pending the litigation. On February 22, 2016, that Court held that it had exclusive jurisdiction to review the challenges under Section 509 of the Clean Water Act. The US filed its brief defending the Clean Water Rule in the Sixth Circuit on January 13, 2017. Subsequently, the Supreme Court granted certiorari with respect to petitions challenging the Sixth Circuit's jurisdictional decision. Briefing in the Supreme Court has not yet been scheduled.

#### Steam Electric

Seven consolidated petitions for review challenging the final [effluent limitations guidelines and standards for the steam electric generating point source category](#), promulgated in November 2015 were filed in the 5<sup>th</sup> Circuit. The Court entered the parties' proposed joint briefing schedule, under which petitioners will file their opening briefs on December 5, 2016. EPA will file its opposition brief on April 4, 2017.

### Clean Water Act Section 316(b)

Six consolidated petitions for review of the final 316(b) regulations establishing requirements for [cooling water intake structures](#) at existing power plants and manufacturing facilities were filed in the D.C. Circuit. Respondent EPA's brief was filed October 12, 2016. Intervenor and amicus briefs in support of EPA were filed November 14, 2016. Petitioners' Reply Briefs were filed December 19, 2016.

### Pebble Mine

In 2014, EPA finalized a scientific report on the ecological sensitivity of Bristol Bay, Alaska, where Pebble Limited Partnership (PLP) is hoping to develop a mine. The Assessment is meant to inform EPA's decision-making regarding whether to restrict use of an area as a disposal site under Section 404(c) of the Clean Water Act. On July 21, 2014, EPA's Region 10 issued a Proposed Determination under Section 404(c), which is the first step in a multi-step regulatory process that could result in a Final Determination. PLP sued EPA for alleged violations of the Federal Advisory Committee Act in preparing the Assessment. EPA is currently subject to a preliminary injunction against all work connected to the Section 404(c) process. The litigation is still in the discovery phase and is stayed until March 20, 2017.

## GENERAL LAW ISSUES

### Hall & Associates

This lawsuit pertains to a Freedom of Information Act (FOIA) request that sought records created for two EPA officials in connection with two presentations in 2013 and 2014 discussing the Eighth Circuit [Iowa League of Cities v. EPA](#) decision. Plaintiff is also suing EPA in a related D.C. Circuit case ([Center for Regulatory Reasonableness v. EPA](#), D.C. Cir. No. 14-1150) arguing that two EPA letters "constituted a decision to continue application of rule amendments vacated by [the [Iowa League of Cities](#) opinion] in states outside the Eighth Circuit." No hearing date or oral argument for the [Hall](#) case has been scheduled. Oral argument in the D.C. Circuit case was held on October 21, 2016. On December 23, 2016, the D.C. District Court stayed the [Hall](#) case in the interest of judicial efficiency because Plaintiff represented that one of EPA's legal positions in this case (that the Agency made no final agency decision) mirrors the Defendant's argument in the D.C. Circuit case. The D.C. District Court also ordered that no later than 30 days after the D.C. Circuit issues its mandate, the parties will file a joint status report that describes the parties' views regarding the impact of the D.C. Circuit decision on this case.

### Lower Passaic River Study Area Cooperating Parties Group

This litigation arises from four FOIA requests submitted between 2014 and 2015 related to one of the largest Superfund cleanups in EPA history, the Diamond Alkali Superfund Site/Lower Passaic River, in New Jersey (Region 2). EPA was ordered to produce a supplemental *Vaughn* index in November 2016 and a sample *Vaughn* index in December 2016. Plaintiffs have submitted a status letter reiterating that despite the additional work, all documents and issues in the case remain contested; EPA will file a response letter by January 17, 2017 and request permission to refile its summary judgment motion, likely on or before March 1.

### EIP, et. al.

This is an appeal before the D.C. Circuit of a D.C. District Court decision related to the intersection between EPA's environmental statutory mandates (in this case, the Clean Water Act) and the application of FOIA Exemption 4 to protect claimed "confidential business information" or "CBI". Plaintiffs appealed that decision to the D.C. Circuit,

where the case is still pending. (b) (5)

EPA's brief is due February 8, 2017.

# SUSTAINABLE ACQUISITION

## ISSUE SUMMARY:

The U.S. Government (USG) is the largest consumer of goods and services, spending roughly \$450B per year. USG purchasers have an impact on the production of these goods and services creating both economic opportunities and energy impacts. When the USG makes more efficient purchasing decisions it provides economic, social and environmental benefits.

## BACKGROUND:

Producing goods and providing services requires energy, water, materials, and land, and has environmental impacts amplified by the complex web of suppliers worldwide. Global material resource use in the 20th century rose at about twice the rate of population, with the total volume of material resources extracted worldwide reaching 60 billion metric tons per year in 2007, of which 60% was non-renewables. The U.S. consumed 57% more materials at the turn of the 21st Century than in 1975. The OECD predicts that global demand for materials will increase by more than 35% over the next 15 years, reaching a demand of 100 billion metric tons per year.

Green acquisition reduces the effect on human health and the environment more than competing products or services serving the same purpose. EPA overall has developed a number of industry supported voluntary partnerships and ecolabels that can help purchasers save energy, water, and money, including, [EnergyStar](#), [GreenChill](#), [SmartWay](#), the [Green Power Partnership](#), [Safer Choice](#), [Water Sense](#), and others. These voluntary partnership programs can be further promoted and used in federal acquisition.

To improve federal acquisition efficiency and effectiveness, GSA created the [Acquisition Gateway](#), a one-stop [Category Management](#) portal providing access to all of the Government-wide Acquisition Contracts (GWAC) available for commonly purchased goods and services. Over the last few years, EPA, in conjunction with OMB, CEQ, GSA, and a host of other federal agencies has worked to embed energy saving product choices within the largest GWACs.

## KEY EXTERNAL STAKEHOLDERS:

☒ Congress
 ☒ Industry
 ☒ States
 ☐ Tribes
 ☒ Media
 ☒ Other Federal Agency  
☒ NGO
 ☒ Local Governments
 ☐ Other \_\_\_\_\_

## MOVING FORWARD:

Work on the Acquisition Gateway is just beginning. Additional work federally and perhaps with states will help further increase economic efficiency and energy savings through the promotion of voluntary ecolabel programs.

LEAD OFFICE/REGION: OP, OCSPP

OTHER KEY OFFICES/REGIONS: OA



# TRICHLOROETHYLENE (TSCA 6(A) RULE)

## ISSUE SUMMARY:

EPA proposed two regulations under the Toxic Substances Control Act (TSCA) section 6(a) to address the unreasonable risks to human health identified from trichloroethylene (TCE) in: 1) spot cleaners used in dry cleaning and in commercial and consumer aerosol spray degreasers, and 2) commercial vapor degreasing. These are the first actions taken on existing chemicals under the new statutory standard.

## UPCOMING MILESTONES:

- **February 2017** – Comment period closes on TCE (spot cleaning and aerosol degreasing) proposed rule.
- **March 2017** – Comment period closes on TCE (vapor degreasing) proposed rule.

## BACKGROUND:

- TCE is a volatile organic compound classified as a human carcinogen. It is widely used in industrial and commercial processes and has some limited uses in consumer products. Acute exposure can potentially cause fetal cardiac malformation or fetal death. Repeated or prolonged exposure is associated with adverse effects in the liver, kidneys, immune system, reproductive system and central nervous system. Exposure to TCE also results in additional concerns in the developing fetus, including impaired growth, alterations in the immune and nervous system functions and some structural malformations. Chronic TCE exposure is carcinogenic to humans by all routes of exposure.
- The June 2016 TSCA amendments provide for EPA to move forward with regulatory action on certain chemicals for which TSCA risk assessments were completed prior to enactment of the TSCA amendments.
- EPA identified both non-cancer and cancer risks associated with TCE in certain commercial and consumer uses as part of the TSCA Work Plan risk assessment issued in 2014. (b) (5)  
 Consultations with state, tribal and environmental justice stakeholders took place in May 2015. EPA finalized a Significant New Use Rule on TCE in consumer products in April 2016.
- EPA has collaborated with the Occupational Safety and Health Administration (OSHA) and the U.S. Consumer Product Safety Commission (CPSC) on the proposed rulemakings.
- On December 7, 2016, EPA proposed a rule to regulate TCE (spot cleaning and aerosol degreasing).
- On January 11, 2017 EPA proposed a rule to regulate TCE (vapor degreasing).

## KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress
 ☒ Industry
 ☒ States
 ☐ Tribes
 ☒ Media
 ☒ Other Federal Agency  
☒ NGO
 ☐ Local Government
 ☐ Other (name of stakeholder) \_\_\_\_\_

- (b) (5)  
 [Redacted]

MOVING FORWARD:

(b) (5)

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LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS:

# TIRE CRUMB (USE IN SYNTHETIC TURF FIELDS & PLAYGROUNDS)

## ISSUE SUMMARY:

Concerns have been raised by the public about the safety of recycled tire crumb used in synthetic turf fields and playgrounds. While existing studies do not comprehensively evaluate the concerns about exposure to tire crumb, the available studies have not shown an elevated health risk from playing on these fields. On February 12, 2016, at the request of the White House, EPA, the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR), and the U.S. Consumer Product Safety Commission (CPSC) launched a multi-agency action plan to study key environmental human health questions about the use of recycled tire crumb in synthetic turf fields and playgrounds.

## UPCOMING MILESTONES:

- (b) (5)

## BACKGROUND:

EPA has supported the responsible recycling and reuse of tires for various purposes, including athletic fields, in an effort to reduce landfill waste. The use of tire crumb in synthetic turf fields has dramatically increased over the last ten years, and communities and sporting entities have made a significant investment installing these types of fields across the country. The coordinated [Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields and Playgrounds](#) includes outreach to key stakeholders, such as athletes and parents, and seeks to:

- Fill important data and knowledge gaps
- Characterize constituents of recycled tire crumb
- Identify ways in which people may be exposed to tire crumb based on their activities on the fields

The Federal Research Action Plan (FRAP) includes two key data collection studies. One of the studies being conducted is an evaluation of tire crumb samples collected from tire crumb manufacturing plants and from indoor and outdoor synthetic turf fields across the country. Researchers are analyzing the samples to characterize the chemical make-up of tire crumbs. A pilot-scale exposure study will gather activity data from people who regularly perform activities on synthetic turf fields.

On December 30, 2016, the three agencies released a *Status Report on the Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields and Playgrounds* was released. The report includes the final peer-reviewed Literature Review and Gaps Analysis, and describes the progress to date on other research activities, including tire crumb rubber characterization, exposure characterization, and the CPSC playground study.

The information in the peer-reviewed final report, (b) (5) will help answer some of the key questions that have been raised by the public and others.

This study is not comprehensive enough to conclude whether or not tire crumb in synthetic turf fields poses an unacceptable risk. However, it represents the first time that such a large study is being conducted across the U.S. The study will answer key questions and provide a better understanding of potential exposures that athletes and others may experience by using these fields.

#### KEY EXTERNAL STAKEHOLDERS:

☐ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☒ Other

(b) (5)

#### MOVING FORWARD:

The findings of this study are intended to provide a better understanding of potential chemical and microbiological exposures (including routes of exposure such as dermal and ingestion, as well as duration of exposure related to how much time spent on these types of fields) that athletes and others may experience when using synthetic turf fields. The results are also expected to inform potential additional investigations. As noted above, this study will not provide a definitive answer to the question of whether or not exposure to the constituents in tire crumb used in synthetic turf fields pose an unacceptable risk. (b) (5)

LEAD OFFICE/REGION: ORD

OTHER KEY OFFICES/REGIONS: OLEM, OCSPP, OCHP, ALL REGIONS

# TITLE VI (CIVIL RIGHTS)

## ISSUE SUMMARY:

EPA's External Civil Rights Compliance Office (ECRCO) ("Title VI"), which is located in EPA's Office of General Counsel (OGC) is charged with enforcing and ensuring compliance with Title VI and other federal civil rights laws that together prohibit discrimination on the basis of race, color, national origin (including limited-English proficiency), disability, sex and age, in programs or activities that receive EPA financial assistance. The advocacy and the civil rights communities have criticized EPA regarding its record in the timely processing of complaints, as well as whether, in light of its history, ECRCO is equipped to address current complaints efficiently and effectively. EPA has a Case Resolution Manual (CRM) and FY 2015-2020 External Civil Rights Compliance Office Strategic Plan (SP), which are being finalized as part of the agency's ongoing effort to strengthen its Title VI Program.

## UPCOMING MILESTONES:

- In January 2017, we will finalize the CRM and SP and continue our engagement of interested stakeholders regarding EPA's accountability measures to further strengthen the program.
- In January 2017, we will disseminate external civil rights compliance policy guidance regarding how to comply with federal civil rights requirements.

## BACKGROUND:

In 2010, EPA funded an independent in-depth evaluation of its civil rights program. Following receipt, the EPA Administrator established an internal Civil Rights Executive Committee to review the evaluation, and other sources of information, and make recommendations for building a model civil rights program for the EPA. Since then EPA has worked to revitalize its civil rights program. EPA strengthened its management structure, streamlined certain functions and designated senior career officials from across the agency (Deputy Civil Rights Officers) to provide advice and support to ECRCO. OCR also began a concerted and successful effort to reduce its external complaint docket and issue policies to clarify requirements for States and other recipients of EPA financial assistance. Despite the agency's progress, the US Commission on Civil Rights in a September 2016 criticized EPA's coal ash regulation, environmental justice and civil rights enforcement efforts, including EPA's complaint-processing timeframes and perceived lack of staffing and resources. The report stated, "The EPA has a history of being unable to meet its regulatory deadlines and experiences extreme delays in responding to Title VI complaints in the area of environmental justice." EPA believes this report contains serious flaws, including it being based on fundamental misunderstandings about our legal obligations and regulatory authorities and its failure to acknowledge the civil rights and environmental justice efforts undertaken and accomplishments achieved in the last five years.

In December 2016, the EPA Administrator signed a notice withdrawing a proposed rule to amend EPA's nondiscrimination regulation (published on December 14, 2015), which would have eliminated strict complaint processing deadlines, among other things. Also, in December 2016, EPA took steps to strengthen the agency's ability to carry out its external civil rights enforcement responsibilities by reorganizing the functions of the former

Office of Civil Rights (OCR) with respect to its External Compliance and Complaints Program. This external civil rights enforcement function now resides organizationally with ECRCO, within OGC.

KEY EXTERNAL STAKEHOLDERS:

☒ Congress    ☒ Industry    ☒ States    ☐ Tribes    ☒ Media    ☒ Other Federal Agency  
☒ NGO    ☒ Local Government    ☐ Other \_\_\_\_\_

(b) (5)

MOVING FORWARD:

(b) (5)

[REDACTED]

LEAD OFFICE/REGION: OGC

OTHER KEY OFFICES/REGIONS: OGC, ALL REGIONS, ALL PROGRAMS

# TRADE AND ENVIRONMENT

## ISSUE SUMMARY:

Trade influences the nature and scope of economic activity, and subsequently, the potential levels of pollution and natural resource use. Free trade agreements provide an opportunity to level the regulatory playing field with partner nations through provisions in the agreements and through capacity building efforts, and at the same time the obligations contained in these agreements, if not negotiated carefully, may also conflict with EPA's authority to regulate to protect public health and the environment.

## UPCOMING MILESTONES:

- TransPacific Partnership (TPP): submitted for possible Congressional vote. Future activities TBD and dependent on the outcome of the Congressional process.
- TransAtlantic Trade and Investment Partnership (TTIP): This agreement was not completed in 2016. Future efforts regarding TTIP negotiations and/or bilateral trade negotiations with European countries will be informed by the incoming Administration as the new Trade Policy Agenda is developed.
- World Trade Organization Environmental Goods Agreement (EGA) negotiations: Parties to the EGA failed to conclude negotiations in 2016, and may emerge as an element of the President's Trade Policy Agenda.
- Bilateral Investment Treaty with China: These negotiations are in the final stage; efforts to complete the treaty are pending and will be informed by the incoming Administration.

## BACKGROUND:

Trade and environment issues have evolved over the last 20 years. In fact, the nexus between trade and environment is recognized and environmental objectives have been explicitly included in the Trade Acts of 2002 and 2015. Specifically, these statutes have changed the nature of the negotiating process and to a significant extent the content of trade agreements. Given the progress made, we expect the attention to environmental issues, and the Agency's role in trade policy, to stay strong or perhaps increase. Currently, EPA participates in: development and delivery of negotiating positions, conduct of environmental reviews/assessments of trade agreements, and delivery of trade-related environmental capacity building.

Recently, the Agency actively participated in the negotiation of all four of the agreements mentioned in the Milestones portion of this paper, including TPP and TTIP. TPP is a comprehensive trade agreement with 12 Pacific Rim countries. The U.S. secured environmental outcomes in the TPP, including a commitment on the part of each country to effectively enforce their environmental laws.

The TTIP is an ongoing bilateral trade negotiation with the EU that will not be completed by the end of 2016. There are ongoing discussions within the U.S. government and with the EU regarding an appropriate stopping point for this process as we head into a new administration



#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☐ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

NGOs might reach out to the incoming Administration to express their concern regarding the environmental impacts of recent trade agreements and the potential impacts on our domestic ability to regulate in the public's interest. Congress might also reach out to the Agency to assess impacts on implementation of our legislative mandates. Media outlets might contact the EPA regarding the cases that have been or could be brought under the Investor State Dispute Settlement (ISDS) mechanism, depending on the status of these actions.

#### MOVING FORWARD:

Decisions regarding the way forward on TPP, TTIP, EGA and China Bilateral Investment Treaty negotiations will be made by the White House. EPA is prepared to provide input to help inform future decisions.

The Agency plans to continue to participate in and influence trade policy development, and advance a meaningful environmental agenda in trade negotiations. Our goal is to improve the environmental elements of any free trade agreement and improve obligations that protect U.S. environmental regulations, so that trade liberalization efforts do not compromise regulatory requirements and high levels of environmental protection. We also plan to continue to contribute to trade capacity building efforts to improve environmental governance and promote sustainable economic development.

An ISDS mechanism is provided for under bilateral investment treaties and comprehensive free trade agreements. EPA works with the Department of State and the Office of the U.S. Trade Representative when environmentally related cases are brought to ISDS mechanisms. One ongoing case pertains to the Keystone Pipeline.

LEAD OFFICE/REGION: OITA

OTHER KEY OFFICES/REGIONS: OCSPP, OAR, OGC

# TRIBAL ISSUES

The following compilation is a summary of key near term topics for EPA's Tribal Program, including those within the OITA/American Indian Environmental Office (AIEO) as well as those within specific EPA media offices and regions. Some topics reference other transitions papers and lead office/regions.

## TRIBAL CONSULTATION AND COORDINATION

EPA, similar to other federal agencies, consults with tribes on a government-to-government basis prior to the taking of actions which may affect them. EPA's Consultation Policy, which defines when and how consultation should take place has improved EPA's consultation process. Generally, federally recognized Indian tribes see EPA as a leader among the federal family in ensuring consultation with tribes

Treaties between the United States and tribes are part of federal law. The treaties cover a wide variety of subjects, including rights reserved by tribes relating to natural resources, such as the right to hunt, fish, and gather both on land ceded, or given up, by tribes, and on land retained by tribes. EPA developed a Tribal Treaty Rights Guidance (Guidance) to complement EPA's Consultation Policy which outlines a process to guide treaty rights discussions with tribes during consultations. Tribes may raise both consultation and treaty rights issues regarding specific EPA actions that may affect tribal interests. Lead Office: OITA.

**Related Issue:** Tribal treaty rights are being discussed by EPA and tribes in regions across the country. For example, tribes involved in the Portland Harbor Superfund site have raised both consultation and treaty rights issues. See *Portland Harbor* Issue Paper.

**Moving Forward:** The new administration can expect tribal leadership to continue to request consultation and dialog on EPA actions that may affect tribal rights and interests, consistent with the tribal Consultation Policy.

## COUNCIL ON NATIVE AMERICAN AFFAIRS

The Council has high-level engagement across the federal agencies, and is designed to improve coordination of federal programs and the use of resources available to tribal governments to effectively respond to tribal concerns. The EPA Administrator and the Secretary of the Interior co-chair the Environment, Climate Change and Natural Resources subgroup, and facilitate nation-to-nation dialogue with tribal leaders. A recent accomplishment is the signing, by nine departments and agencies, of the *Memorandum of Understanding Regarding Interagency Coordination and Collaboration for the Protection of Tribal Treaty Rights*. Lead Office: OITA.

**Moving Forward:** Tribes will expect the EPA Administrator to continue to serve as the subgroup co-chair.

## DRINKING WATER, WASTEWATER AND SOLID WASTE INFRASTRUCTURE AND OPERATION AND MAINTENANCE – SEE ISSUE PAPER ON *WATER & WASTEWATER INFRASTRUCTURE*

EPA supports tribes through funding for construction of drinking water and wastewater infrastructure on tribal lands, where there is a significant unmet need. A number of tribes also advocate for additional funding for the closure and cleanup of open dumps and provision of solid waste infrastructure. While EPA generally lacks authority to fund operation and maintenance (O&M) of tribal environmental infrastructure, EPA provides training and technical assistance to support O&M at tribal utilities. However, many tribes continue to see the federal government as the appropriate source of funding for both infrastructure construction and O&M.

Through the federal [Infrastructure Task Force](#) (ITF), EPA, Indian Health Service, DOI, HUD, and USDA collaborate with tribes to seek efficiencies in federal actions around infrastructure, provide funding for infrastructure, and promote sustainable practices. Although significant progress has been made, there continues to be a disproportionate lack of infrastructure in Indian country when compared to the country overall. Once constructed, O&M funding continues to be an issue for many tribes. Lead Office: OW, OLEM, with other federal agencies

### **Moving Forward:**

- EPA should continue to work with other federal agencies and tribes to identify short and long term priorities and solutions to infrastructure issues.
- Alaska Native Villages are facing unique and significant challenges related to climate change impacts. Water and wastewater infrastructure is particularly vulnerable to extreme weather and rising sea levels. Resiliency features that address changing conditions are needed to help protect tribal infrastructure and the federal investment.

## FEDERAL BASELINE WATER QUALITY STANDARDS FOR INDIAN RESERVATIONS – SEE ISSUE PAPER ON *WATER QUALITY STANDARDS – TRIBAL ISSUES*

EPA's policy is to ensure the close involvement of tribal governments in making decisions and managing environmental programs affecting reservation lands. Under the Clean Water Act, less than 50 tribes have assumed the delegable program for water quality standards and achieved EPA-approved water quality standards (WQS) for reservation waters. The lack of approved standards leaves a gap in public health and environmental protection for tribal communities, and tribes continue to ask EPA to address this issue. To fill the gap, on September 29, 2016, EPA published an advanced notice of proposed rulemaking ([ANPRM](#)) to initiate a dialogue with tribes, states, the public, and other stakeholders regarding whether EPA should initiate a rulemaking to establish WQS for Indian reservations lacking them and, if so, what approach EPA should take. The public comment period for the ANPRM ended on December 28, 2016. EPA will consider public comments in its decision whether to continue with a potential rulemaking. Lead Office: OW with the Regions and OITA.

## TRIBAL RIGHTS AND STATE WATER QUALITY STANDARDS APPROVALS BY EPA – SEE ISSUE PAPER ON *WATER QUALITY STANDARDS – TRIBAL ISSUES*

Issues related to tribal fishing rights and state Water Quality Standards (WQS) are coming up in several states, including Maine, Washington, and Idaho. EPA generally has broad discretionary authority under the Clean Water Act in determining whether state WQS comply with the Act. In exercising its discretion, EPA must ensure that its decisions comply with any other sources of applicable law, including federal treaties and statutes that reserve rights

to natural resources, such as fishing rights, to a tribe(s). For instance, certain federal treaties and statutes support an interpretation that a state's fishing-related designated use includes sustenance or subsistence fishing by tribes for certain waters under state jurisdiction, and these rights may affect the derivation of protective human health criteria for a water quality standard. In addition to the states mentioned above, tribes in Minnesota have raised concerns over whether proposed revisions to the state's WQS to protect waters used for wild rice production will be sufficient to protect treaty rights for wild rice gathering. Lead Office: OW with the Regions and OITA.

#### AFFIRMED TREATY RIGHTS IN CEDED TERRITORY AND MINING

Chippewa Tribes located in Wisconsin, Minnesota, and Michigan continue to raise concerns about detrimental impacts to their judicially-affirmed treaty rights to fish, wildlife, and plant resources from legacy, ongoing, and planned large scale ferrous and hardrock mining projects permitted under federally approved state programs. Region 5 works with other federal agencies, including the U.S. Army Corps of Engineers and the U.S. Forest Service to address cross-agency jurisdictional issues. Region 5 expects tribes to continue to raise significant concerns regarding impacts to treaty resources and the loss of land from the ceded territory. Lead Office: Region 5 with OITA and other Headquarter offices.

#### TRIBAL IMPLEMENTATION ("SELF-GOVERNANCE") OF FEDERAL ENVIRONMENTAL PROGRAMS WITH EPA FUNDING SUPPORT

Several tribes have recently engaged EPA in a dialogue on "self-governance" approaches for federal environmental programs (e.g., clean air or clean water programs) with EPA funding support. The discussion normally occurs in meetings with the DOI Tribal Self-Governance Advisory Committee. Parts of several other federal agencies have "self-governance" authority under which tribes assume management of programs and have greater freedom and control to provide services that would otherwise be provided by the federal government. Tribes are requesting that EPA look for opportunities under EPA's existing legal authorities that may allow tribes to exercise greater flexibility in using EPA environmental program grant funds. Lead Office: OITA.

**Moving Forward:** EPA has begun to review its existing programmatic and funding authorities to be responsive to the tribes' interest in self-governance approaches.

#### INDIAN ENVIRONMENTAL GENERAL ASSISTANCE PROGRAM FUNDING

As the single largest EPA grant program for tribes, issues surrounding funding levels and implementation of the "Indian Environmental General Assistance Program" (GAP), are routinely raised by tribes. The GAP program allocates approximately \$65M annually to over 530 tribes and intertribal consortia to help them plan, develop, and establish the capacity to administer environmental protection programs. In response to a 2008 Inspector General report, and after consulting with tribes, EPA developed a framework of capacity development indicators and is now entering into EPA/tribal strategic plans (a.k.a. EPA-Tribal Environmental Plans) which identify our respective roles and responsibilities and shared environmental priorities. Lead Office: OITA.

**Moving Forward:** The GAP program is a key element of EPA's Tribal Program and well-received by tribes generally. EPA will continue to address issues as they arise among the diverse universe of recipients.

## TRANSBOUNDARY ENVIRONMENTAL AND PUBLIC HEALTH ISSUES

Tribes located near the United States-Canada border, including those in Alaska, raise issues associated with a wide array of transboundary issues, including mineral extraction, land use planning, agriculture, energy production, dams, and the transportation, storage, and disposal of material and fuel. These activities can impact the quality of the air, land, and water, fish passage, tourism, commercial fishing, and tribal subsistence hunting, fishing and gathering. Regulatory issues can include environmental reviews, permitting, treaties, and compliance. Lead Office: Regions 1, 2, Region 8, and Region 10, with OITA.

**Moving Forward:** EPA will continue to work on these issues with the affected tribes, the State Department and other federal agencies, and Canada.

## ADDITIONAL TOPICS OF INTEREST TO TRIBES

### **Gold King Mine – See Issue Paper**

Three tribes (Navajo Nation, Southern Ute Indian Tribe, and Ute Mountain Ute Tribe) were impacted by the Gold King Mine release. Litigation related to the incident is described in the OGC paper. EPA Regions 6, 8, and 9 are preparing to finalize all submitted reimbursement applications to affected local, county, state, and tribal entities, and to disallow some costs. Reimbursement of state, local and tribal response costs to date total over \$1.6 million. As part of EPA's after action efforts EPA regions are working with tribes to identify emergency response contacts for all federally recognized tribes. EPA is currently in the process of reviewing awards in Clean Water Act grant money to states and tribes to support water quality monitoring of the Animas and San Juan Rivers. Lead Office/Region: OLEM, OW, Region 6, Region 8, and Region 9.

### **Dewey Burdock Mine Uranium Mining Area**

Tribes in EPA Region 8 are engaging with EPA on in-situ mining in the Dewey-Burdock uranium mining area which is located in South Dakota and is a high-grade in-situ recovery deposit. (b) (5)

Lead Office/Region: Region 8.

### **Dakota Access Pipeline**

Tribes in EPA Region 8 have engaged with EPA previously on the Dakota Access Pipeline and tribes across the country have expressed interest in the actions of the federal family surrounding tribal consultation, tribal treaties, and sacred sites. The Standing Rock Sioux Tribe and numerous other tribal nations oppose the construction of the pipeline across the Missouri River upstream of the Standing Rock Sioux Tribe's drinking water intakes and on lands affecting cultural resource sites. Federal agencies initiated consultation with tribes across the country to discuss improving tribal consultation and tribal involvement in federal infrastructure decisions, and are developing a report of findings that may help inform agency consultation policies and how these policies are implemented. Lead Office/Region: Region 8.

### **Federal Implementation Plan for Oil and Natural Gas Production Facilities on the Uintah and Ouray Indian Reservation in Utah**

Tribes in EPA Region 8 continue to engage with EPA on the Uintah and Ouray Federal Implementation Plan. The final FIP, for the Administrator's signature, will regulate VOC emissions from existing oil and natural gas sources in the Indian Country portion of the Uintah and Ouray Indian Reservation in Utah. Lead Office/Region: Region 8.

### **Clean Power Plan and the Navajo Nation**

The Navajo Nation is engaged with EPA (OAR and Region 9) on issues surrounding the Clean Power Plan the Four Corners Power Plant and Navajo Generating Station. Lead Office/Region: OAR.

### **Abandoned Uranium Mines and the Navajo Nation**

The Navajo Nation is engaged with EPA Region 9 on the continued efforts to address the universe of abandoned uranium mines within the Navajo Nation. Lead Office/Region: Region 9.

### **Zika – See Issue Paper**

The EPA supports the Centers for Disease Control and Prevention in the response to the Zika public health emergency by providing expertise in integrated pest management, pesticide registration and use, and cleanup of environmental contamination in indoor and outdoor areas. Tribes are seeking additional funding to control mosquitoes, build infrastructure and provide education on integrated pest management. Lead Office/Region: OCSPP.

### **New TSCA – See Issue Paper**

The EPA is currently working on implementing the recently signed new chemicals law (June 2016). Under the new law EPA must evaluate new and existing chemicals against a new risk-based safety standard that includes explicit considerations for potentially exposed or susceptible subpopulations. Lead Office/Region: OCSPP.

### **Lead – See Issue Paper**

In light of the lead in drinking water found in Flint, Michigan, EPA is working with States and municipalities across the U.S. to test drinking water for lead and assist in taking action where needed. Tribes are also concerned about risks from lead and have asked for additional assistance from EPA on this topic. Lead Office/Region: OW

### **Transportation of Fuel**

The transport by train of fuel has become a concern for some communities in the U.S., due to high profile derailments, such as the June 3 2016 derailment of a Union Pacific train carrying Bakken crude oil along the Columbia River near the town of Mosier. Tribes in the Columbia River watershed region and in other areas of the country are expected to continue to raise concerns to EPA about the transportation of fuel by train. Lead Office/Region: Region10

# U.S. GHG Emissions Trends

## ISSUE SUMMARY:

Annual emissions of greenhouse gases (GHGs) in the U.S. peaked in 2007. Since then, GHG emissions have fallen and emissions projections for future decades have decreased as well, reflecting the impact of recently implemented policies.

## UPCOMING MILESTONES:

- **Mid-April, 2017** - U.S. Greenhouse Gas Inventory published
- **January 2018** - Seventh U.S. National Communication (or Climate Action Report) to be published - Interagency coordination usually begins prior spring (Spring 2017)

## BACKGROUND:

- The United States regularly reports on national GHG emissions trends
  - Historical emissions trends are tracked and reported annually, most recently the U.S. Greenhouse Gas Inventory: 1990-2014 (GHGI, published April, 2016). EPA is the lead agency for compiling and publishing the Inventory.
  - Every two years the UNFCCC publishes reports that cover historical emissions trends, policies and measures, future emissions projections, international financing, and other topics. The most recently published is the U.S. Second Biennial Report to the UNFCCC (BR2, submitted January 1, 2016).
- Public commitments
  - The current U.S. national goals are to reduce GHG emissions in the range of 17% below 2005 by 2020 and 26-28% below 2005 by 2025.
  - Approaches to these goals are outlined in strategy documents including the President's Climate Action Plan (June 2013) and Strategy to Cut Methane Emissions (March 2014).
  - The national GHG inventory is submitted to the United Nations in accordance with U.S. treaty obligations under the UNFCCC.
  - EPA implements the Mandatory Reporting of Greenhouse Gases Rule which requires annual reporting of GHG data and other relevant information from large sources in the U.S.
- Historical emissions trends and composition of emissions from the GHG Inventory (2014 data)
  - U.S. net GHG emissions, including net sequestration from land use change and forestry, were 6,108 million metric tons CO<sub>2</sub> equivalent (MMT CO<sub>2</sub>-eq.). This level is 7.9% above the 1990 level and 8.6% below the 2005 level.
  - By gas, the largest portion of GHG emissions is CO<sub>2</sub> (80.9%), followed by methane (10.6%), nitrous oxide (5.9%) and fluorinated gases (2.6%).
  - By economic sector, electricity generation accounted for the largest portion (30%) of GHG emissions, followed by transportation (26%), industry (21%), agriculture (9%), commercial (7%), and residential sectors (6%).



- Major recent federal actions on mitigation include
  - Carbon emissions standards for power plants; efficiency standards for cars and trucks; energy efficiency standards in buildings and homes and conservation standards for appliances and equipment; policies to reduce emissions of non-CO2 GHGs such as methane and hydrofluorocarbons; promoting climate smart agriculture and forestry; and programs to reduce the federal government's emissions and energy consumption.
- The BR2 includes two projections for U.S. GHG emissions through 2025
  - A *Current Measures* scenario that incorporates policies implemented through mid-2015
  - An *Additional Measures* scenario that assumes the implementation of additional actions
- BR2 projects lower emissions than in previous reports
  - Under the *Current Measures* scenario, projected emissions do not reach the 2020 and 2025 goals
  - Under the *Additional Measures* scenario, projected emissions reach the 2020 goal but are probably short of the 2025 goal

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Governments      ☒ Other: foreign governments including Canada, Mexico, China, Brazil, and Nordic countries, which signed joint statements on climate with the U.S.

#### MOVING FORWARD:

Tracking historical trends and projecting future emissions of greenhouse gases is a routine activity that enables an understanding of changing contributions to emissions by sector and gas.

LEAD OFFICE/REGION: OAR

OTHER KEY OFFICES/REGIONS:

# VOLKSWAGEN DEFEAT DEVICE LITIGATION

## ISSUE SUMMARY:

EPA, the Department of Justice (DOJ), and the California Air Resources Board (CARB) are in the midst of resolving a major Clean Air Act case against Volkswagen. In addition, there are other ongoing actions for consumer relief through the Federal Trade Commission and private class action lawsuits. The violations concern VW's concealed use of illegal software—known as defeat devices—that cheat EPA's vehicle emission tests and cause excess vehicle emissions. Most of the affected vehicles are the subject of a \$14.7 billion settlement partial consent decree that was entered as a final judgment of the Court on October 25, 2016. There are parallel criminal enforcement efforts underway.

## UPCOMING MILESTONES:

- Beginning shortly after entry of the partial consent decree, EPA and CARB must act on the companies' proposed "emissions modifications" to assess whether they satisfy the technical requirements of the settlement. This will determine whether vehicle owners can have their car fixed, or whether buyback is their only option.
- After entry, EPA and DOJ must work with various stakeholders and the Court to establish the mitigation trust. We will also work with the companies to finalize their investments plans for the zero emission vehicle element of the settlement.
- **Between now and mid-2017:**
  - Discussions on a potential settlement are ongoing for the remaining vehicles.
  - EPA and other parties, including most states, will also be seeking civil penalties for all vehicles.
  - The civil matter is in active litigation in multi-district litigation in the Northern District of California.

## BACKGROUND:

In Fall 2015, the EPA alleged Clean Air Act violations by Volkswagen AG, Audi AG and Volkswagen Group of America, Inc., Porsche AG, and Porsche Cars North America (collectively, Volkswagen). In January 2016, the DOJ filed a complaint against these entities, along with Volkswagen Group of America Chattanooga Operations LLC, for the alleged violations. The allegations are that all their diesel vehicles since 2009 (about 600,000 vehicles) include hidden software that circumvents EPA emissions standards for nitrogen oxides (NOx). The software determines whether the car is being emissions tested, and if it is not being tested, the software disables pollution controls. This kind of software is a "defeat device," which is prohibited by the Clean Air Act.

On October 25, 2016, the Court approved the proposed settlement between Volkswagen, the United States, and California partially resolving the litigation covering nearly 500,000 model year 2009 to 2015 2.0 liter diesel vehicles sold or leased in the United States. Concurrently with its approval of the federal enforcement action, on October 25, 2016 the Court also approved separate settlements between Volkswagen, the Federal Trade Commission and the class action plaintiffs. Altogether, the settlements require Volkswagen to spend up to \$14.7 billion to settle allegations of cheating emissions tests and deceiving customers. The settlements give consumers options, including

to have Volkswagen buy back their vehicle or to have the vehicle modified (subject to governmental approval after further testing). Volkswagen will pay \$2.7 billion to a mitigation trust that will fund projects across the country to reduce emissions of NOx. Lastly, the companies will invest \$2 billion toward improving infrastructure, access, and education to advance zero emission vehicles.

The settlements do not resolve pending claims for civil penalties or any claims concerning 3.0 liter diesel vehicles or that might be brought by other agencies. They also do not address any potential criminal liability. This settlement is a significant first step toward holding Volkswagen accountable for a breach of its legal duties and of the public trust.

There are parallel criminal investigations. On September 9, 2016, James Robert Liang, a Volkswagen engineer, pleaded guilty to one count of conspiracy to defraud U.S. regulators and U.S. Volkswagen customers, to commit wire fraud, and to violate the Clean Air Act. His plea agreement provides that he will cooperate with the government in its ongoing investigation.

See <https://www.epa.gov/enforcement/volkswagen-clean-air-act-partial-settlement> for more information on the settlement, and <https://www.epa.gov/vw> for general information.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☒ Local Government      ☒ Other (name of stakeholder) VW Owners

#### Key concerns:

- Ensuring adequate remedy with respect to affected vehicles and mitigation for excess pollution.
- Administration of environmental mitigation projects that are funded by VW under the settlement, but which will be performed by states and tribes.
- Input to Volkswagen on the company's zero emission vehicle investments.
- Feasibility of emission standards, adequacy of EPA oversight, concerns about other automakers using defeat devices.

#### MOVING FORWARD:

EPA will continue to be involved in ongoing settlement negotiations and active litigation to address and remedy the effects of VW vehicles with illegal defeat devices. To prevent future violations, OAR continues to evolve its vehicle test methods and compliance oversight programs.

LEAD OFFICE/REGION: OECA, OAR

OTHER KEY OFFICES/REGIONS: OITA, OPA, AND OCIR

# WATER INFRASTRUCTURE FINANCE & INNOVATION ACT (WIFIA)

## ISSUE SUMMARY:

EPA is working to establish the administrative structure needed to make loans under the new Water Infrastructure Finance and Innovation Act (WIFIA) program, including: an interim final WIFIA implementation rule that outlines the program's administrative framework and a proposed Fee Rule that proposes fees to reimburse the Agency for the cost of retaining expert firms to underwrite and service federal loans and guarantees.

## UPCOMING MILESTONES:

- (b) (5)

## BACKGROUND:

Many communities face [challenges providing adequate and reliable water infrastructure](#). Our nation needs about \$655 billion in investments for drinking water, wastewater, and stormwater. The Water Infrastructure Finance and Innovation Act (WIFIA) of 2014 created a new federal loan and guarantee program at EPA to accelerate investment in our nation's water infrastructure.

WIFIA is an innovative funding mechanism for water-related infrastructure of national or regional significance. WIFIA authorizes EPA to provide federal credit assistance in the form of loans or guarantees to eligible entities, including: corporations; partnerships; joint ventures; trusts; federal, state, or local governmental entities; tribal governments or consortiums; or state infrastructure finance authorities.

Unlike the State Revolving Fund (SRF) programs, which receive capital from EPA to establish and operate state infrastructure banks, WIFIA provides federal credit directly from EPA. WIFIA is not a replacement for the SRF program. It provides supplemental financing for projects in need of additional, inexpensive capital. WIFIA may provide loans to or partner with SRF programs to finance large projects. The WIFIA program will provide loans for up to 49 percent of eligible project costs for projects that will cost at least \$20 million, or \$5 million for small communities (population of 25,000 or less).

To establish the administrative structure necessary to make loans under the WIFIA program, EPA published the following two rules on December 19, 2016:

- An interim final rule, Credit Assistance for Water Infrastructure Projects, which provides the administrative framework for the implementation of the WIFIA program. It establishes application guidelines and project selection criteria. It also defines the threshold for credit assistance, limits on credit assistance, reporting requirements, and the applicability of other federal statutes.

- A proposed rule, Fees for Water Infrastructure Project Applications under WIFIA, which establishes the fee schedule for the application process.

On December 10, 2016, Congress passed the Further Continuing and Security Assistance Appropriations Act, which provided \$17 million in budget authority and \$3 million for program administration for the WIFIA program. (b) (5)

(b) (5)

On January 10, 2017, EPA issued a [Notice of Funding Availability for Applications for Credit Assistance under the WIFIA Program](#), soliciting letters of interest from prospective borrowers seeking credit assistance from EPA. (b) (5)

(b) (5)

#### KEY EXTERNAL STAKEHOLDERS:

☐ Congress      ☒ Industry      ☐ States      ☐ Tribes      ☐ Media      ☐ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

(b) (5)

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#### MOVING FORWARD:

(b) (5)

LEAD OFFICE/REGION: OW

OTHER KEY OFFICES/REGIONS:

# WATER QUALITY STANDARDS:

## TRIBAL ISSUES

### ISSUE SUMMARY:

EPA has undertaken a number of recent initiatives to better protect water resources of importance to tribes on a national basis, as well as through state-specific water quality standards (WQS) actions.

### UPCOMING MILESTONES:

- (b) (5)

### BACKGROUND:

This paper is focused exclusively on WQS actions and issues related to protecting water resources of importance to tribes. There are also periodic state-by-state WQS issues which warrant attention or action from senior EPA officials unrelated to tribal water resources.

Water quality standards are the foundation of the water quality-based pollution control program mandated by the Clean Water Act (CWA). They define goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing antidegradation requirements. They also serve as the basis of water quality-based limits in National Pollutant Discharge Elimination System permits, the measure to assess whether waters are impaired, the basis for biannual state water quality assessment and reporting, and the target for total maximum daily loads of pollutants to aid in the restoration of impaired waters.

To be effective under the CWA, WQS must be approved or promulgated by EPA. WQS are typically developed by states, territories, and authorized tribes; however, EPA may develop WQS if it disapproves of a state or tribal WQS, or in instances where the Administrator determines that new or revised WQS are necessary. With a few exceptions, EPA-approved WQS do not extend to Indian country waters.

Fewer than 50 tribes out of over 300 with reservations have EPA-approved WQS. To address this gap, on January 18, 2001, EPA made a [determination](#) that federal WQS are necessary for reservation waters currently lacking WQS. On September 29, 2016, EPA published an [Advance Notice of Proposed Rulemaking \(ANPRM\) for Federal Baseline WQS for Indian Reservations](#) to initiate a dialogue with tribes, states, the public, and other stakeholders regarding whether EPA should initiate a rulemaking to establish WQS for Indian reservations lacking them and, if so, what approach EPA should take.

EPA generally has broad discretionary authority under the CWA in determining whether state WQS comply with the Act. In exercising its discretion, EPA must ensure that its decisions comply with any other applicable law, including federal treaties and statutes that reserve rights to natural resources, such as fishing rights, to a tribe(s). For instance, federal treaties and statutes support an interpretation that a state's fishing-related designated use includes certain subsistence or sustenance fishing by tribes for some or all waters under state jurisdiction. Where this use applies, tribal members consuming or wishing to consume higher amounts of fish in accordance with their subsistence (or sustenance) fishing rights reasonably become the target population for the purposes of deriving protective human health criteria. States where this is an issue include:

- **Maine:** On December 19, 2016, EPA published final [federal WQS for certain waters under the state of Maine's](#) jurisdiction, including criteria to protect sustenance fishing in waters within their reservations and in waters subject to sustenance fishing rights under the Maine Implementing Act. EPA promulgated these WQS after it disapproved certain Maine WQS in 2015 because they were not sufficiently protective of some designated uses, including sustenance fishing. The state sued EPA over the disapprovals and over EPA's approval of a sustenance fishing designated use in certain tribal waters.
- **Washington:** On November 15, 2016, EPA signed a notice of final rulemaking revising the current federal CWA HHC applicable to waters under Washington's jurisdiction to ensure that the criteria are set at levels that will adequately protect fish consumers in Washington from exposure to toxic pollutants. Concurrent with this final rule, EPA took action under the CWA to approve 45 of Washington's HHC where they are as stringent, or more stringent, than criteria that EPA determined would be protective of fish consumers. EPA disapproved of 143 of Washington's criteria where they are less stringent than criteria that EPA determined would be protective of fish consumers. Under a court ruling, EPA had until November 15, 2016, to act on Washington's WQS submittal and/or sign a notice of final rulemaking regarding federal HHC applicable to Washington's waters. (b) (5)  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]
- **Idaho:** On December 13, 2016, Idaho submitted revised HHC to EPA. Currently, the Agency is reviewing Idaho's submittal for consistency with the CWA and EPA's implementing regulations. Under a settlement agreement with the Idaho Conservation League, EPA must either approve HHC submitted by Idaho, or sign a notice of proposed federal rulemaking for HHC by June 13, 2016 (within six months of Idaho's submission).
- **Minnesota:** (b) (5)  
 [REDACTED]  
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 [REDACTED] MPCA established its current WQS for sulfate in 1973, based on studies from the 1940s. In 2011, the Minnesota Legislature directed the MPCA to reevaluate the standard based on a number of concerns, including the science behind it and inconsistent enforcement. Using the results of this reevaluation, MPCA is revising the standard, calling for site-specific "equation-based" criteria that take into account how sulfate behaves in the natural environment. Continued concerns about the current standard led the governor to sign legislation in 2015 prohibiting MPCA from using it until a new standard is in place. The Minnesota Legislature has mandated that a revised WQS be developed and take effect by January 15, 2018. (b) (5)  
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KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☐ Media      ☒ Other Federal Agency  
☒ NGO      ☐ Local Governments      ☐ Other (name of stakeholder) \_\_\_\_\_

- **ANPRM:** (b) (5)
- **Maine:** (b) (5)
- **Washington:** (b) (5)
- **Idaho:** (b) (5)
- **Minnesota:** (b) (5)

- (b) (5) [REDACTED]

## OTHER KEY OFFICES/REGIONS: OITA, OGC, REGIONS

# WATER/WASTEWATER INFRASTRUCTURE

## ISSUE SUMMARY:

Aging and deteriorating water infrastructure is a major problem in many communities, especially, vulnerable, overburdened, or otherwise economically stressed communities. EPA works on initiatives that provide financing, managerial, technical, and planning tools to communities to address these challenges.

## UPCOMING MILESTONES:

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- [REDACTED]

## BACKGROUND:

Drinking water, wastewater, and stormwater infrastructure are essential for healthy communities and the success of the local and national economy. However, most of the nation's drinking water and wastewater infrastructure was built 50 or more years ago and is facing a growing list of challenges, including: threats to drinking water security, (b) (5) [REDACTED] population growth; increases in impervious surfaces; an increasing number of unknown and emerging contaminants from industrial chemicals, pharmaceuticals and other sources; limited funding; and difficult and expensive infrastructure and engineering challenges in providing advanced treatment for pollutants, such as nutrients.

Each year aging systems release billions of gallons of sewage into local waters and streets, exposing the public to pathogens. In 2015, widespread sewage backups in the Baltimore area affected approximately 5,000 residents, resulting in expensive repairs for homeowners and exposing residents to bacteria and viruses that can cause serious health impacts. Approximately \$2.6 billion is lost annually as [pipes leak trillions of gallons of treated drinking water](#). EPA estimates that over \$655 billion is currently needed to maintain, upgrade, and replace our country's infrastructure. Climate change will also require additional investments to improve the resiliency of our water and wastewater systems.

EPA helps support water infrastructure investments through a variety of programs. Through the Clean Water State Revolving Fund (CWSRF) and [Drinking Water State Revolving Fund](#) (DWSRF), states receive capital from EPA to establish and operate state infrastructure banks to help address important water quality and public health needs across the country. EPA also has two new programs, the [Water Infrastructure Finance and Innovation Act \(WIFIA\) program](#) and the [Water Infrastructure and Resiliency Finance Center](#), to support state water infrastructure investments.

Since 1987, the CWSRF Program has provided \$111 billion in financial assistance to clean water projects—including wastewater treatment, nonpoint source pollution control, and watershed and estuary management. Since 1997, the DWSRF Program has provided over \$30 billion in low-interest loans and subsidies to public drinking water systems for projects such as treatment installation, replacement of distribution system pipes or service lines, mitigation of the effects of climate change through energy or water efficiency or increased storage, and interconnection of systems. The DWSRF also funds states to provide technical assistance to help drinking water systems develop technical, financial, and managerial capacity needed to sustainably operate, maintain their infrastructure, and support the reliable delivery of safe drinking water. In addition, both SRFs allow states to provide some subsidization to assist disadvantaged communities.

The [Water Infrastructure and Resiliency Finance Center](#) (WIRFC) was created in January 2015 to explore leading-edge solutions to infrastructure funding and revenue challenges; identify and support best practices; identify financial solutions to help communities meet infrastructure needs; provide financial advice, support, and technical assistance to stakeholders; provide expertise on national water infrastructure; and build relationships with government partners and stakeholders.

Through a series of [Regional Water Finance Forums](#), the WIRFC, in partnership with EPA Regions and the Regional [Environmental Finance Centers](#), is bringing together communities with water infrastructure financing needs for peer-to-peer networking. The WIRFC has developed resources to assist communities, including case studies and best practices exploring financing strategies of public-private and public-public [partnerships](#) in the water sector, and a water finance clearinghouse to provide communities information on funding sources, mechanisms, and approaches to help them make informed decisions about the water infrastructure needs.

The WIFIA program, created as a result of the 2014 Water Infrastructure Finance and Innovation Act, is a new federal loan and guarantee program at EPA that will accelerate and expand investment in our nation's water infrastructure. WIFIA is intended to complement the existing SRF programs by providing subsidized financing for large projects. The WIFIA program will provide loans for up to 49 percent of eligible project costs for projects that will cost at least \$20 million for large communities, or \$5 million for small communities (population of 25,000 or less).

To establish the administrative structure necessary to make loans under the WIFIA program, on December 19, 2016, EPA published an [interim final WIFIA implementation rule](#) that outlines the program's administrative framework and a [proposed Fee Rule](#) that proposes fees to reimburse the Agency for the cost of retaining expert firms to underwrite and service federal loans and guarantees.

December 10, 2016, Congress passed the Further Continuing and Security Assistance Appropriations Act, which provided \$17 million in budget authority and \$3 million for program administration for the WIFIA program. (b) (5)

[REDACTED]

On January 10, 2017, EPA issued a [Notice of Funding Availability for Applications for Credit Assistance under the WIFIA Program](#), soliciting letters of interest from prospective borrowers seeking credit assistance from EPA. (b) (5)

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Vulnerable, overburdened, and economically distressed communities may experience substantial, unique challenges in achieving access to clean and safe water. Shortfalls in technical, managerial, and financial capacity can exacerbate challenges associated with aging infrastructure in economically stressed communities. Operation and maintenance needs and expenses vary considerably, depending on factors such as water system size, source water quality, system-specific monitoring and treatment requirements, and distribution system and collection configuration.

EPA is engaged in a variety of initiatives to provide tools to help these vulnerable, overburdened, and economically distressed communities develop water system technical, managerial, and financial capacity and address funding and financing needs for infrastructure planning, design, and construction. These efforts include targeted infrastructure funding to disadvantaged communities through the SRF programs (totaling more than \$10 billion between 2009 – 2016), and awarding funding to nonprofit organizations to provide training and technical assistance to public water and wastewater systems (totaling \$43 million between FY 2012 – 2015). Additionally, the WIRFC has developed resources to assist such communities, including a [compendium](#) that highlights Customer Assistance Programs offered by utilities for low-income customers, and the Water Community Assistance for Resiliency and Excellence ([WaterCARE](#)) initiative, which is providing 10 mid-sized communities (population less than 100,000) with financial planning services to support community investment in water infrastructure.

Technical and financial capacity are not the only challenges faced by these communities. Individuals tasked with managing small and rural water systems are also in need of assistance. EPA and the USDA Rural Utility Service are implementing an initiative called *Sustainable Management of Rural and Small Systems*. Across the country, these managers are participating in training sponsored by EPA and USDA to help them systematically analyze and take action to address their most pressing challenges. Local elected officials are also encouraged to attend this training to help them develop a deeper understanding of local challenges and be in a position to make critical decisions to manage infrastructure and improve system performance.

Finally, in October 2016, the Office of Water presented the [National Environmental Justice Advisory Committee](#) (NEJAC), with a charge seeking their advice and recommendations on tools and best practices for providing safe and clean water to vulnerable, overburdened, and economically distressed communities as well as opportunities to complement state and federal government efforts with local and regional partnership approaches to help address water system capacity and infrastructure needs. NEJAC's recommendations are anticipated in FY18.

Tribal communities and communities along the U.S.-Mexico border also face unique water infrastructure challenges. Many tribal water systems are disproportionately impacted by technical, managerial, and financial capacity challenges, which affect their ability to achieve and maintain system sustainability. Many tribes in Alaska face difficulties due to extreme climate and remote locations. Along the U.S.-Mexico border, many residents of small, economically distressed communities have inadequate or no access to drinking water and sanitation, and often lack resources to plan and secure construction funding. Through the [Tribal Set-Aside Program of the Drinking Water Infrastructure Grant](#), [Clean Water Indian Set-Aside Program](#), [Alaska Native Villages and Rural Communities Grant Program](#), and [U.S.-Mexico Border Water Infrastructure Program](#), EPA is working to help meet the water infrastructure needs of such communities.

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KEY EXTERNAL STAKEHOLDERS:

- ☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Governments      ☒ Other: Water and wastewater utility organizations

MOVING FORWARD:

(b) (5)  
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LEAD OFFICE/REGION: OFFICE OF WATER

OTHER KEY OFFICES/REGIONS:

# WEST LAKE LANDFILL (MISSOURI)

## (Subsurface Smoldering Event)

### ISSUE SUMMARY:

EPA is working toward selecting a final remedy to cleanup the West Lake Landfill Superfund site in Bridgeton, Missouri. The site contains radiologically-impacted material (RIM) from the Manhattan Project and a landfill, a portion of which has been smoldering since 2010. General concerns relate to perceived health effects and other potential impacts from the RIM. In addition, in response to a lawsuit filed by a local family in **November 2016**, EPA is developing a focused sampling plan to investigate allegations that radioactive contamination was found in dust and dirt samples collected from a home.

### UPCOMING MILESTONES:

EPA recently announced it was extending its timeline for proposing a final remedy for public comment from the end of 2016 to a future date to be determined in 2017. The timing of milestones to select the remedy is dependent on receiving adequate work products from the Potentially Responsible Parties (PRPs).

### BACKGROUND:

West Lake Landfill is a former sanitary landfill that closed in the 1970s. In 1973, a now-defunct trucking company mixed 39,000 tons of soil with 8,700 tons of a low-level radioactive material called leached barium sulfate and brought it to the landfill as “clean fill” material. The landfill used the material to cover compacted trash in two areas as part of routine operations.

EPA added the site to the Superfund National Priorities List (NPL) in 1990. Located near the Lambert-St. Louis Airport, the site is surrounded by commercial/industrial facilities with residential areas less than a mile away and the Missouri River approximately two miles to the west. The site includes two operable units (OU1 and OU2) as described below:

**Operable Unit 1 (OU1)** is comprised of two areas where 8,700 tons of RIM from the Manhattan Project mixed with approximately 38,000 tons of soil were used as daily cover for refuse in the landfill operations in 1973. The PRPs for OU1 are Bridgeton Landfill LLC and Rock Road Industries, Cotter Corporation, and the U.S. Department of Energy.

In 2008, EPA issued a Record of Decision (ROD) for OU1 that called for construction of an engineered landfill cover over the RIM. In response to community requests to reconsider this approach and recommendations from the National Remedy Review Board (NRRB), EPA subsequently required the PRPs to perform additional work that will support consideration of a full range of remedial alternatives at OU1, including leaving all of the RIM in place, partial excavation, and full excavation.

In 2009, at the request of environmental groups, EPA put the cleanup on hold to conduct more testing, analysis and public involvement..



In **April 2016**, EPA reached an enforceable agreement with one of the PRPs to take actions to monitor for and protect the RIM against subsurface reactions, including installation of a heat extraction system, installation of additional temperature monitoring probes and completion of placement of a synthetic cap over the entire Bridgeton Landfill. EPA has also been working with PRPs to evaluate the feasibility of a physical barrier.

**Operable Unit 2 (OU2):** OU2 includes the former Bridgeton Landfill, which was used to dispose of sanitary waste, industrial waste, and demolition fill until 2004. The SSE (underground smoldering/fire) has been ongoing in OU2 since **2010**. (referred to as a “subsurface smoldering event” which is a chemical reaction similar to an underground fire).

In **2008**, EPA issued a ROD for OU2 that deferred remediation to the State of Missouri’s solid waste program. In **2013**, the State of Missouri filed a lawsuit against Bridgeton Landfill for violations of environmental laws, and is requiring the company to monitor and address the movement of the underground chemical reaction in OU2.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☐ Industry      ☒ States      ☐ Tribes      ☒ Media      ☒ Other Federal Agency  
☐ NGO      ☐ Local Governments      ☒ Other (name of stakeholder) Community Groups

There is a significant level of interest by congressional, media, and community members in the upcoming final remedy decision, as many have voiced their demand for full excavation of the RIM. The community and congressional members have expressed frustration with the time it has taken to complete the additional investigations and evaluations necessary for EPA to make its decision on the OU1 remedy. Over the past two years, EPA has been requested to relocate residents living within a two-mile radius of the site. Based upon available sampling data, EPA has determined that conditions at the site do not warrant temporary or permanent relocations at this time. The recent **November 2016** lawsuit alleging radioactive contamination inside a nearby residence has renewed relocation requests from some community members.

In **November 2015**, MO Senators Roy Blunt and Claire McCaskill, and Rep. Ann Wagner and William Lacy Clay, introduced bi-partisan legislation in both houses to transfer remediation authority and control of the cleanup to the Army Corps of Engineers’ Formerly Utilized Sites Remedial Action Program (FUSRAP). The Senate bill (S.2306) passed by unanimous consent in Feb. 2016; the House bill (H.R.4100) remained in committee. In written testimony the Corps noted, “The Administration has serious concerns about this legislation and cannot support it in its current form...[as it] will likely further unnecessarily delay the cleanup of the site and it will saddle the general taxpayer with the cost of cleanup and cost recovery as compared to the PRPs at the site.”

#### MOVING FORWARD:

EPA has required the PRPs to submit a Remedial Investigation Addendum and a Final Feasibility Study, both of which are required to support the Agency’s final remedy decision for OU1. These documents will describe the nature and extent of contamination and will evaluate the remedial alternatives. Once these documents are finalized, Region 7 will consult with the NRRB for its comments, and will release the proposed remedy decision to the public for review and comment. Following the comment period, EPA will issue its final remedy decision that will address cleanup of OU1.

EPA has identified the need to better characterize potential releases of contaminants into groundwater beneath the

Site (OU3). The work to perform this groundwater characterization is targeted to begin in 2017.

EPA is focused on ensuring that remedy decisions are compliant with the law and based on sound science. EPA plans to hold the PRPs accountable for meeting deadlines as it works toward completing its final proposed remedy and ROD in the months ahead.

To address community concerns, EPA is developing a focused residential sampling plan to investigate recent allegations that radioactive contamination has been found inside a nearby home. We will rely on scientifically-sound data to guide our efforts and to determine our next steps.

LEAD OFFICE/REGION: REGION 7

OTHER KEY OFFICES/REGIONS: OLEM/OECA/OGC/ORD

# WORKFORCE OVERVIEW

The Workforce Overview consists of three segments:

- 1) Agency Workforce Snapshot.
  - a. Information is presented on the size of the Agency along with Program Office and Regional breakouts.
  - b. Information on the major occupation types, education levels, grade levels, race, national origin, gender and age is included.
- 2) Trends in attrition and retirement predictions.
- 3) Trends in hiring along with a hiring status.

In general terms, the EPA is a programmatically and geographically dispersed organization, with nearly half of the workforce outside of the Washington, DC headquarters. The workforce is highly educated with a firm commitment to the agency, resulting in a low attrition rate and a slightly higher average age.

A key challenge for the new Administration will be to:

- Recruit and retain top talent with the necessary skills to protect human health and the environment.
- Manage knowledge transfer from experienced employees before they retire.

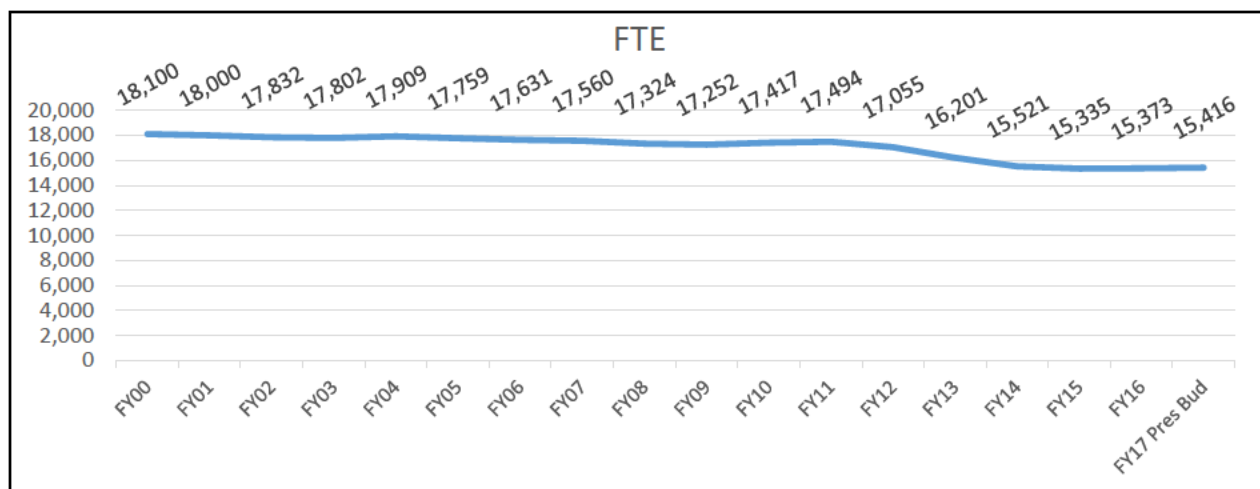
All graphical information is accompanied by a summary analysis.

## FTE INFORMATION:

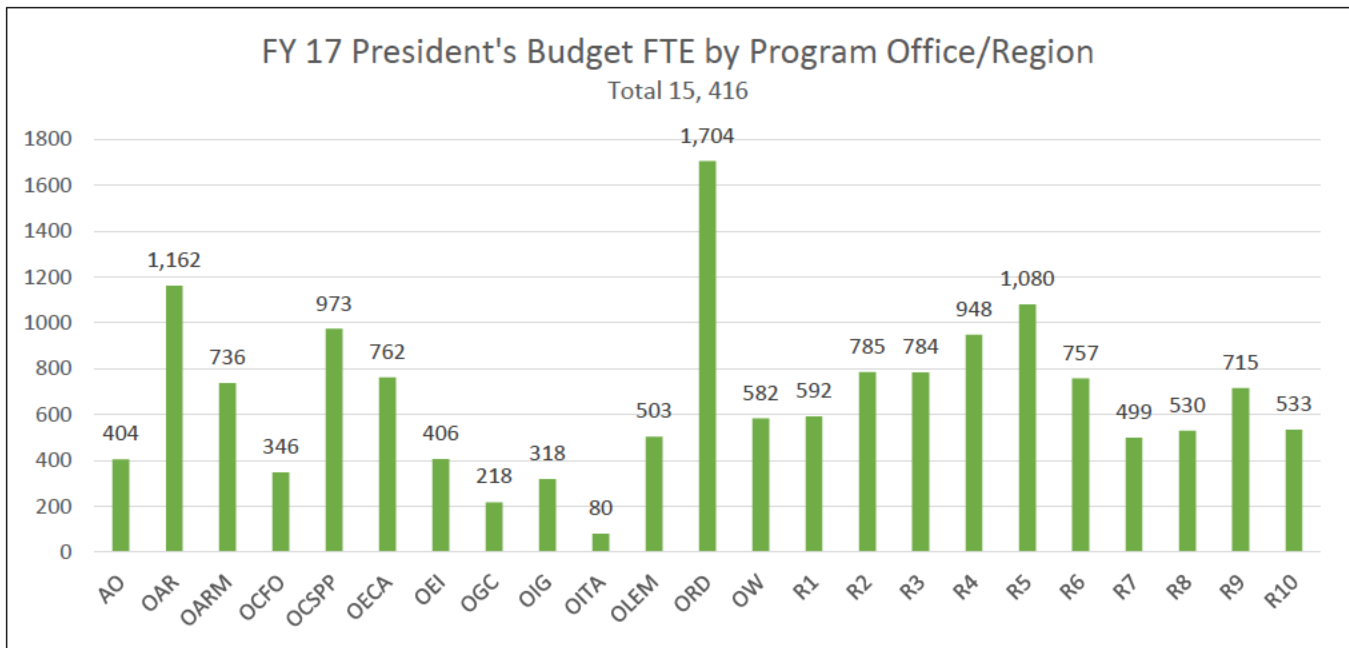
In FY00, there were 18,000 FTE working for EPA and in FY16, there were 15,400.

The number of FTE at EPA experienced a 15% decrease from 2000 with a 9% decrease from 2012 - 2014.

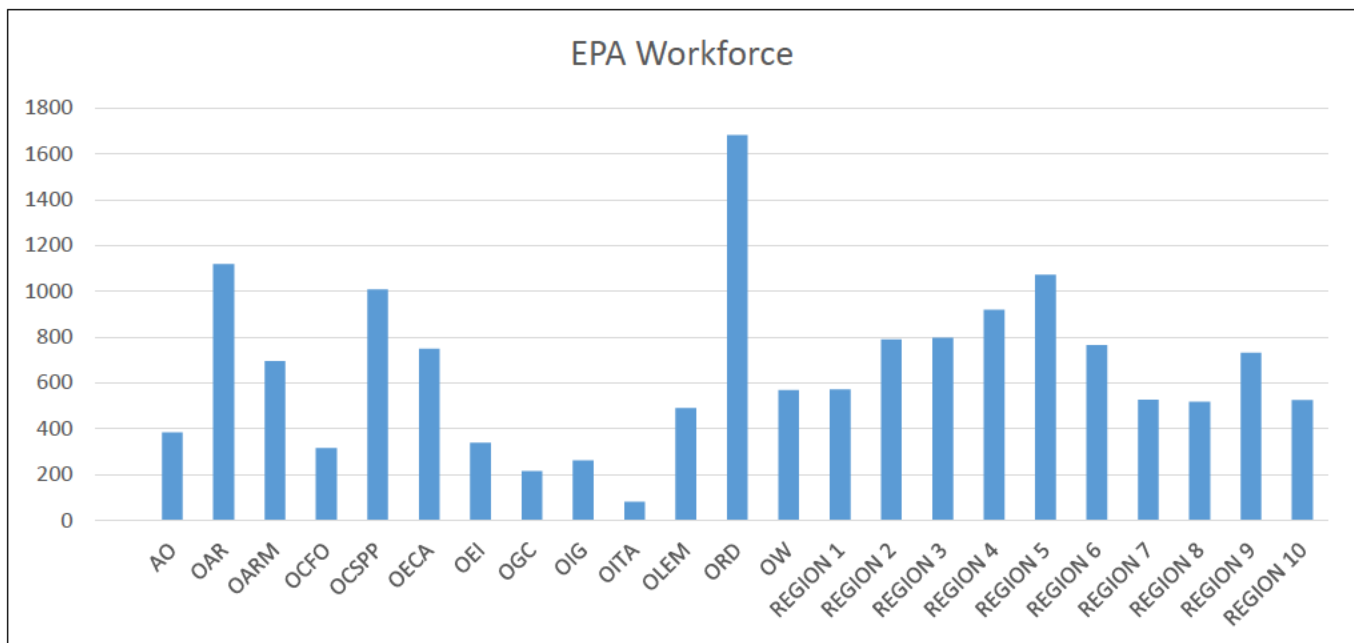
The decrease is in line with coinciding budget reductions and hiring restrictions.



Currently 52% of employees are assigned to Program Offices and 48% work in the Regions. Program Offices range in size from 80 FTE (Office of International and Tribal Affairs) to 1,704 FTE (Office of Research and Development). The Regions range from 499 (Region 7 in Kansas City) to 1,080 FTE (Region 5 in Chicago).



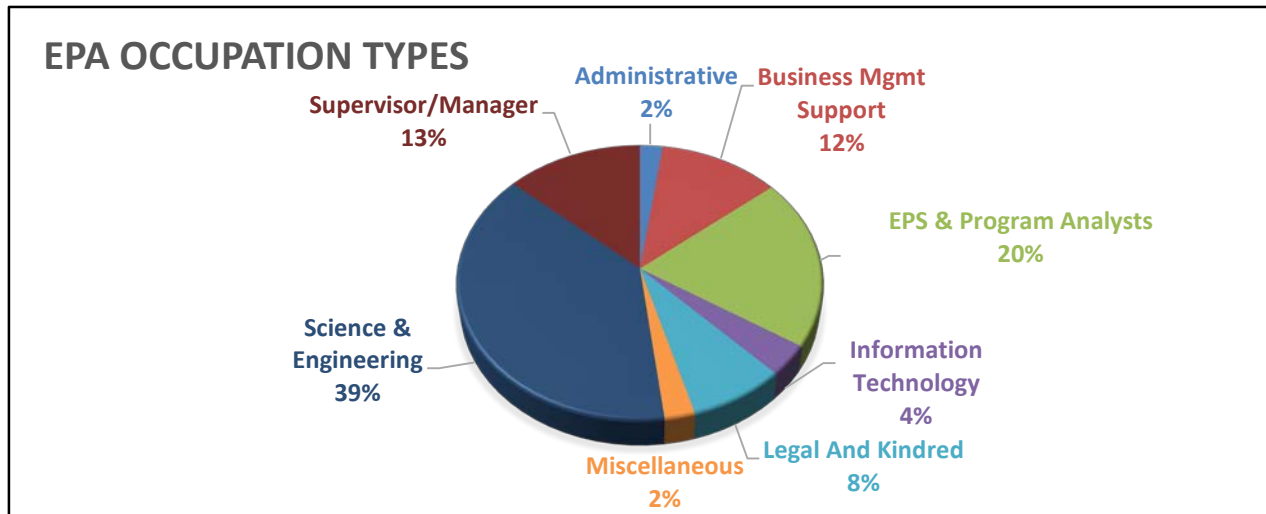
As of November 1, 2016, the EPA has approximately 15,000 employees onboard. This number includes full-time employees, part-time employees and employees that are charged to reimbursable accounts. For example, approximately 150-200 employees are charged against a reimbursable account authorized under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).



The next series of charts present more detailed information about the EPA workforce.

## OCCUPATION TYPES, EDUCATION, GRADE DISTRIBUTION

The majority of the occupation types at EPA are science and engineering, followed by Environmental Protection Specialists (EPS) and Program Analysts.



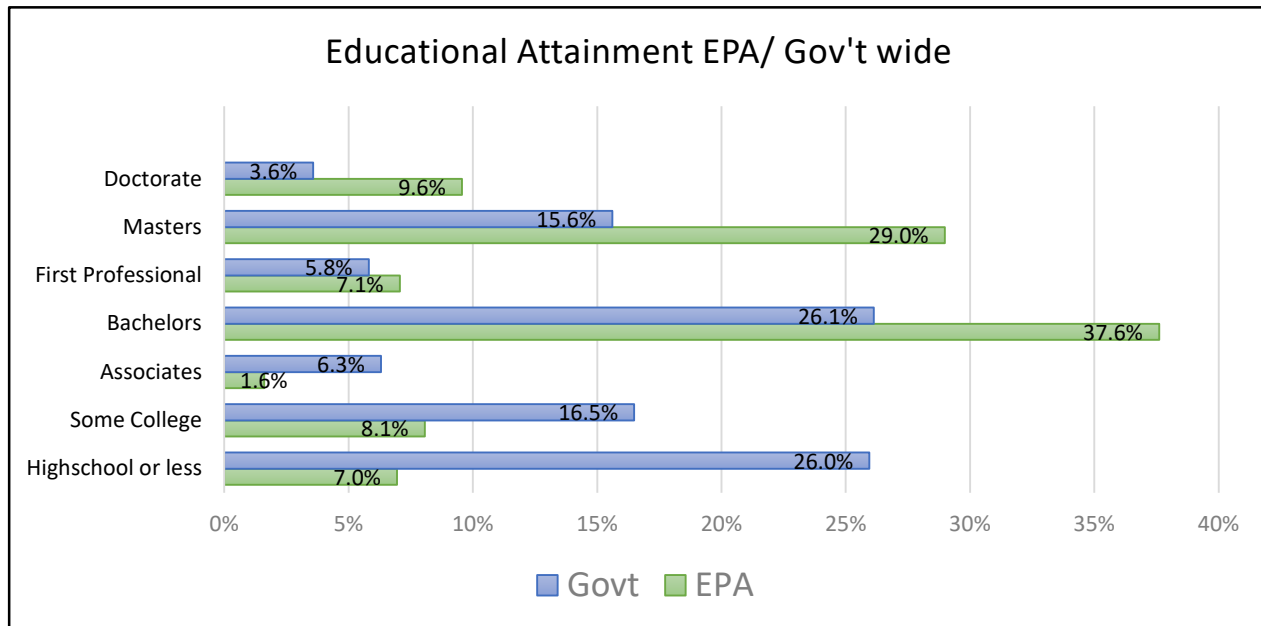
The Occupation Types have not changed significantly in recent years with the following exceptions:

- Science and engineering categories increased 2% in the past two years.
- Administrative positions decreased 1% in the past two years.

#### Notes on Occupation Types

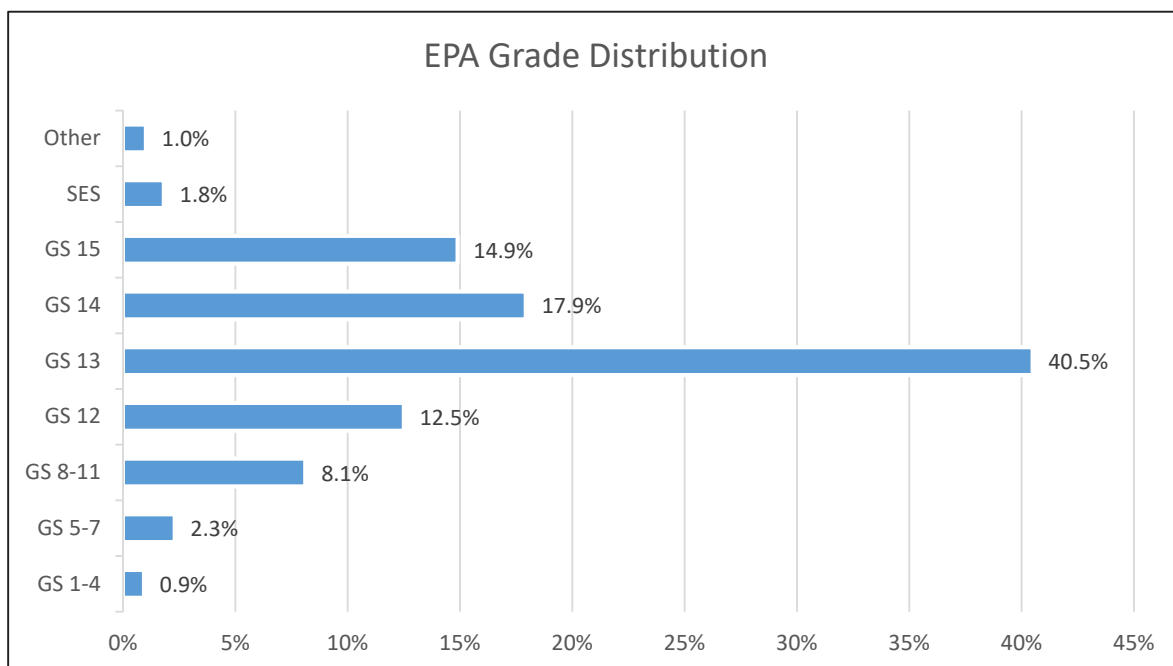
- The Science and Engineering category consists of 64 different occupational series.
- Business Management Support includes occupations such as human resources specialist, contracts specialist, grants management, budget analyst, etc.
- Environmental Protection Specialists and Program Analysts are generalist occupational series that cover a variety of technical and programmatic work at the agency.

EPA's mission of protecting human health and the environment requires a highly educated, STEM-focused workforce. Over 75% of EPA's workforce has a bachelors or higher degree compared to 51% for the government workforce. 47% of EPA's workforce holds a higher degree.



Note: First professional signifies the completion of academic requirements for selected professions that are based on programs requiring at least two academic years of previous college work for entrance and a total of at least six academic years of college work for completion, e.g., Law (LL. B. or J.D.), Medicine (M.D.), Veterinary Medicine (D.V.M.).

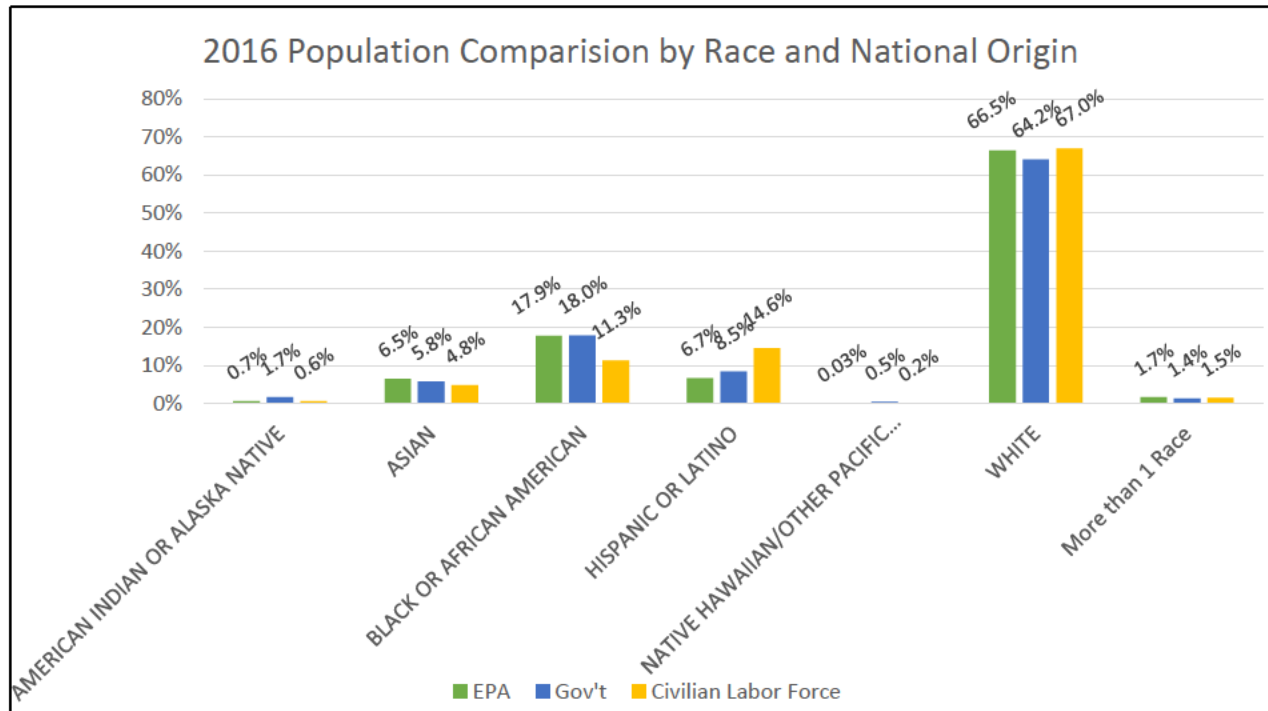
The highly educated workforce and technical skillset results in a higher percentage of GS13s and above, compared with the rest of the government.



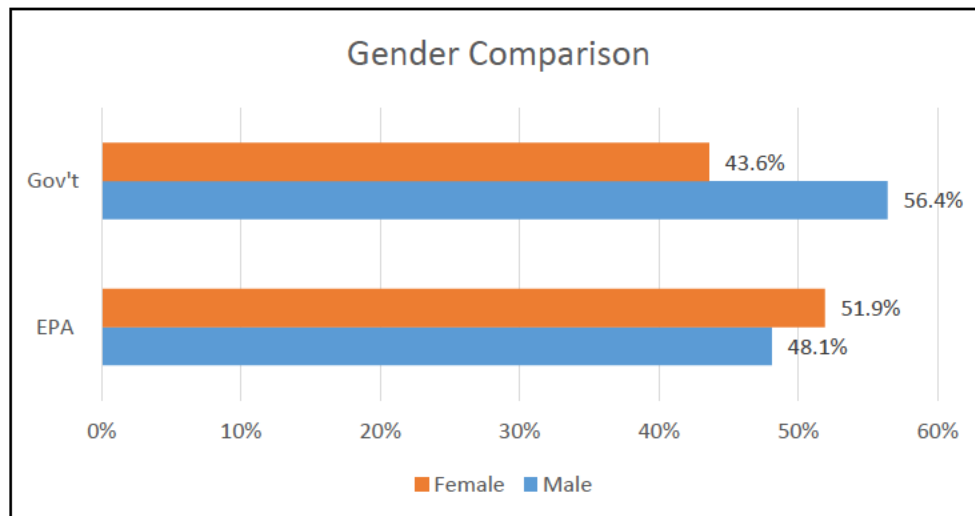
Others include Appointees and career employees outside the GS pay scale.

## DIVERSITY

Race and National Origin (RNO) diversity and gender profile for EPA have been steady. EPA has a larger percentage of women in its workforce than the Federal Government.



Compared to the Civilian Labor Force (CLF), Hispanics are underrepresented at the EPA. However, over the past five years the Hispanic workforce increased 1%, the largest increase among RNO groups.





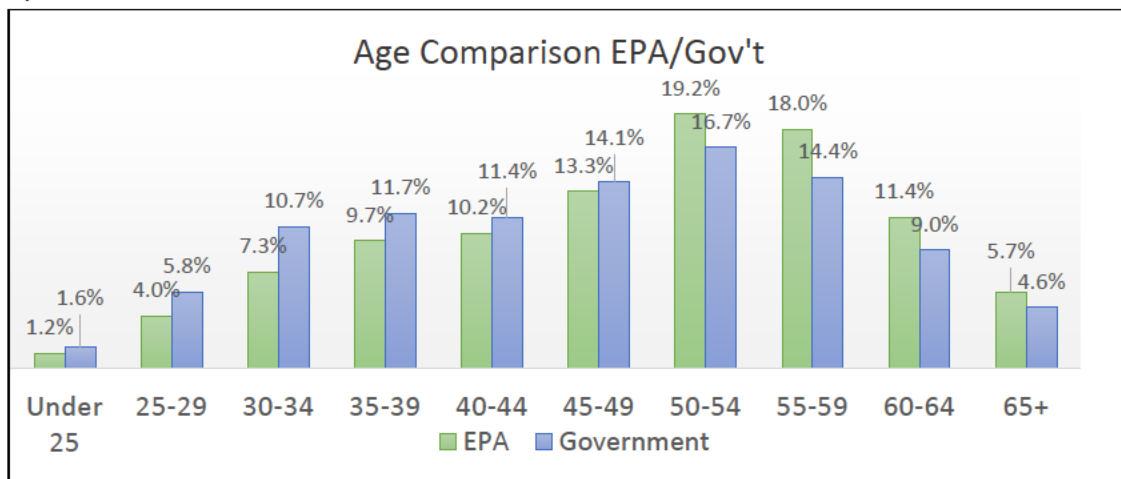
The gender profile for the EPA workforce has not changed significantly in recent years, though small changes have occurred within types of occupations

- The population of women in legal and science & engineering occupations is steadily increasing. In the past five years the number of women at EPA in science & engineering increased 1.9% and increased 2.8% in legal occupations.
- The EPA continues to surpass the gender benchmarks set by the Civilian Labor Force (CLF). CLF is 50%.
- The EPA continues to surpass the gender benchmark set by the Federal labor market. Federal is 44%.

## AGE TRENDS:

The average age of the EPA workforce increased from 47 in FY05 to 50 in FY16.

- The EPA's workforce is slightly older than the federal government as a whole with larger percentages of employees in age groups over 50.
- Over 50% of the agency's workforce is over the age of 50.
- The agency's under 30 population increased about 1% during FY16, making this group 5.2% of agency employees.

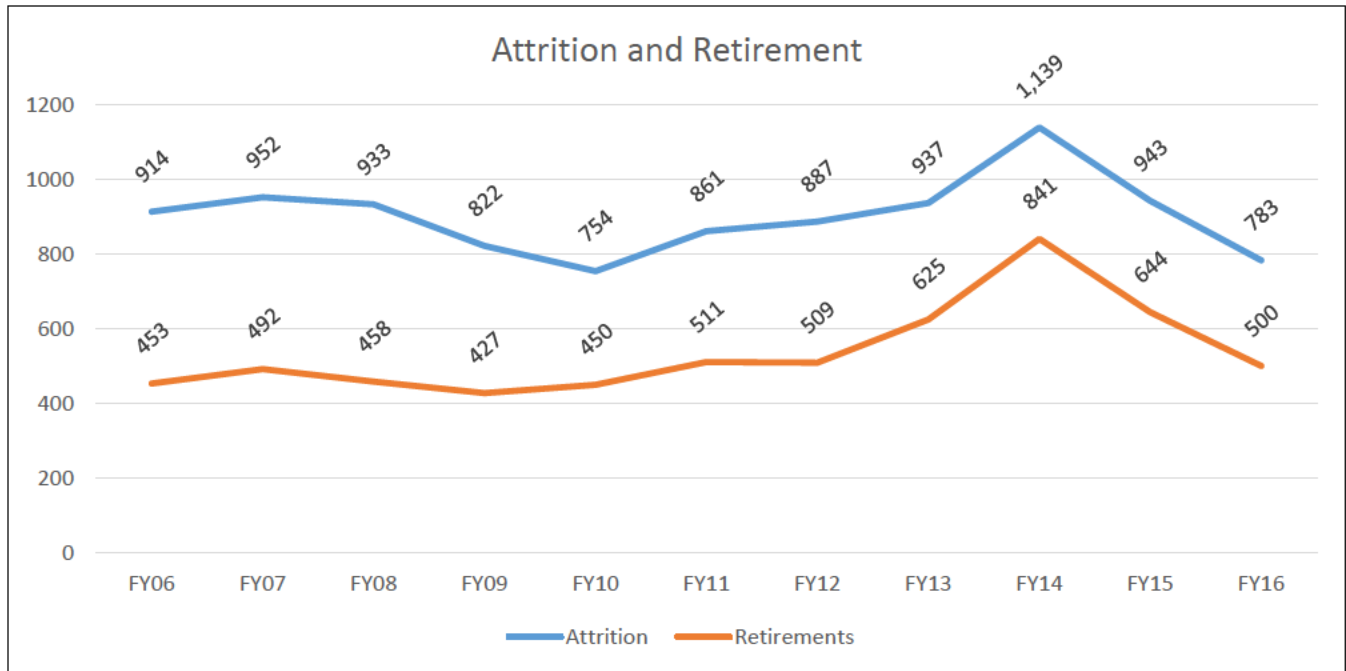


Multiple factors contribute to the agency's aging population.

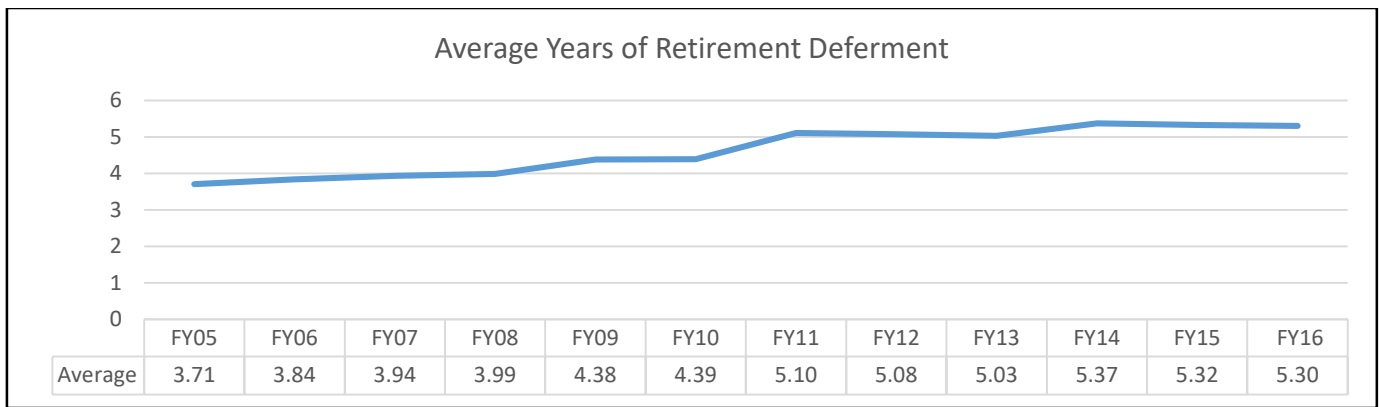
- The percentage of agency employees under 30 decreased nearly 3% from FY12 to FY15; during this time the agency experienced limited hiring and hiring freezes.
- Since FY05 the percentage of employees over the age of 50 steadily increased as many delayed retirement, potentially due to economic uncertainties.

## ATTRITION AND RETIREMENT:

EPA's 5% average attrition rate is low compared to the Federal Government average of 8%. Currently 22% of the Agency is eligible to retire with 25% of supervisors and 33% of Senior Executive Service (SES) employees eligible. The average time an employee continues to work after becoming eligible to retire is approximately 5 years.

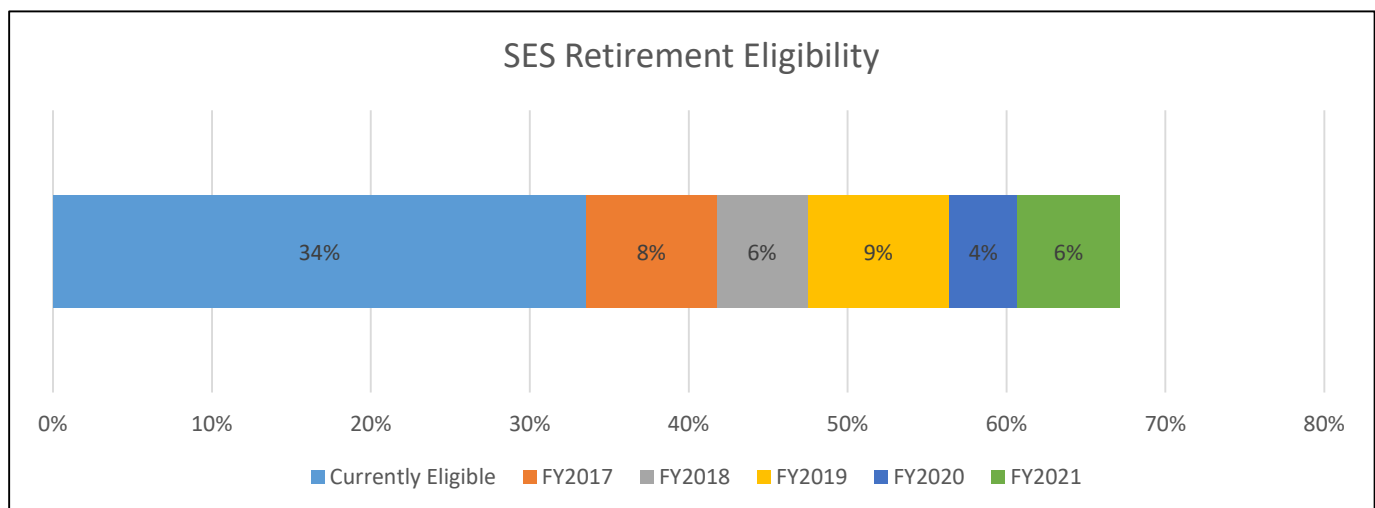
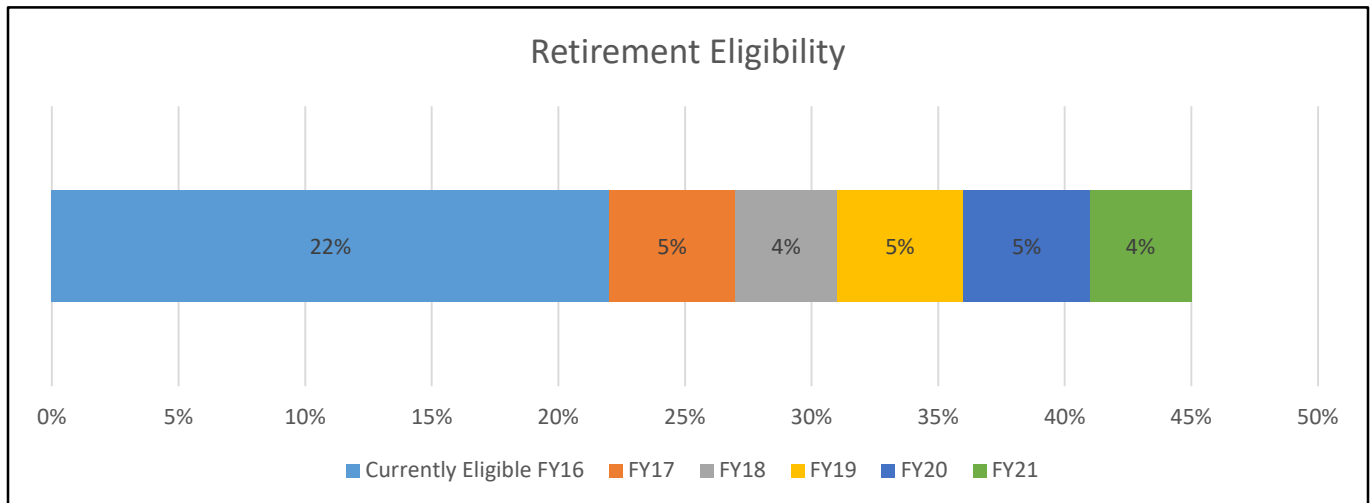


- The EPA's annual attrition rate is generally about 5%, with an annual retirement rate of about 3%. In FY14 and FY15 the agency surpassed these normal measures due to two rounds of early-outs/buyouts. Through this process, 682 employees departed the agency which increased overall attrition and decreased the workforce size.
- Since FY13, retirements account for 68% of the agency's attrition.



The average number of years that EPA employees are deferring retirement is increasing.

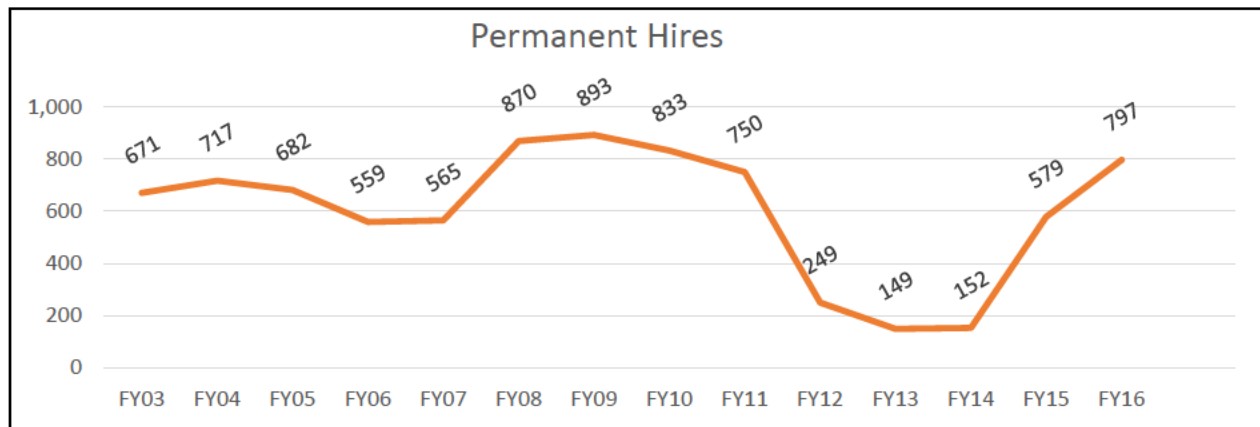
- The average length of stay beyond retirement eligibility steadily increased from FY05-FY15, resulting in an average deferment of over 5 years.
- During this time period the percentage of employees who retired in the first two years of eligibility decreased by 17.6%.



- Currently, 25.1% of Supervisors and 32.9% of SES are currently eligible to retire.

**HIRING INFORMATION:**

- Through two phases of an early-out/buyout process in 2014, EPA program and regional offices focused on defining the skills and competencies needed for the agency's mission. This resulted in a reduction in administrative positions and a greater focus on strategic hiring for science and engineering positions.
- EPA hiring was limited during FY 12-14. The total number of hires during those three fiscal years was less than the hires completed in FY15.
- 43% of FY15 and FY16 hires were in science and engineering occupations and less than 2% were in administrative positions (Secretary, Clerical, Receptionist, etc.).
- 42% of FY15 and FY16 hires were in GS 7 and GS 9 grades.

**LEAD OFFICE/REGION:** OARM**OTHER KEY OFFICES/REGIONS:**

# ZIKA VIRUS

## ISSUE SUMMARY:

The spread of the Zika virus, mainly via mosquitoes, in the continental United States and its territories is an ongoing and highly visible public health emergency. The Centers for Disease Control and Prevention (CDC) is the lead federal agency for responding to the Zika virus. EPA supports CDC, providing expertise in integrated pest management, pesticide registration and use and cleanup of environmental contamination in indoor and outdoor areas.

## UPCOMING MILESTONES:

- **Mid 2017** - An updated [Naled](#) human health risk assessment will be released for public comment.

## BACKGROUND:

Although many people infected with Zika have no symptoms, the virus can cause serious developmental effects in newborns as well as [Guillain-Barré syndrome](#), a rare disorder in which a person's own immune system damages their nerve cells, causing muscle weakness and sometimes paralysis. Through proper mosquito prevention and control at the federal, state, local and household levels, the spread of the Zika virus can be slowed in the United States. The Zika virus has had a large impact in Puerto Rico and other island territories. Travel-related cases have been identified in 49 states (none in Alaska) and the District of Columbia, and local transmission is continuing to occur in Florida.

EPA is focused on encouraging appropriate pesticide use and providing technical assistance on wide-area spraying, residential treatments, integrated pest management and personal protection. EPA is also expediting applications for new product registrations or emergency exemptions.

EPA has approved five emergency exemptions for pesticide products to be used for vector control (i.e., pesticides that were not previously registered for these uses):

- Three were issued to CDC for the pesticide deltamethrin to help protect people from mosquito bites (primarily nets and curtains);
- Another was issued to CDC to control mosquito populations (In2Care traps with the pesticides pyriproxyfen and *Beauveria bassiana*); and
- The fifth was issued to the Department of Defense for the pesticide permethrin to help comply with international requirements to disinfect aircraft coming from countries with Zika transmission.

Naled and malathion are two currently-registered pesticides used by Mosquito Control Districts for aerial and ground spraying to control adult mosquitoes. Naled is the most commonly used pesticide for aerial mosquito control. Both Naled and malathion are being evaluated as part of EPA's mandated review program to determine whether the pesticides continue to meet the Agency's safety standard. On September 15, 2016, EPA released for public comment the draft malathion human health risk assessment. Since the draft risk assessment indicated a potential risk for children when malathion is applied aurally to kill mosquitoes, EPA also provided mosquito control

professionals with advice on how to reduce exposures to protect human health when applying malathion aerially while finalizing the risk assessment.

On August 30, 2016, EPA extended and expanded an existing experimental use permit (EUP) for *Aedes aegypti* mosquitoes infected with the *Wolbachia pipientis*, wAlbB strain bacteria. The updated EUP authorizes testing to evaluate the *Wolbachia* bacteria's effectiveness in suppressing and eliminating *Aedes aegypti* mosquitoes at particular sites in Fresno and Orange County in California and Monroe County in Florida. As the *Aedes aegypti* mosquitoes are known to carry the Zika virus, information gathered under this EUP may lead to a new tool to help control mosquitoes that carry diseases. The EUP applies to a male mosquito that has had a naturally occurring bacteria inserted. When the male mates with a wild female mosquito, the bacteria prevents the mosquito embryo from developing.

EPA's Office of Research and Development has initiated projects to address research gaps. An effort in Brownsville, Texas, is gathering spatial and temporal information on *Aedes aegypti* distribution in relation to habitat and developing models to forecast future vulnerabilities to Zika and other mosquito-borne diseases. A project in San Juan, Puerto Rico, is investigating potential relationships of wastewater discharges, flooding and habitat alterations to mosquito population size, viral load and infections of nearby residents. Laboratory studies are underway to develop a virtual tissue model for microcephaly to better understand its various causes, including Zika infection.

#### KEY EXTERNAL STAKEHOLDERS:

☒ Congress      ☒ Industry      ☒ States      ☒ Tribes      ☒ Media      ☒ Other Federal Agency  
☒ NGO      ☒ Local Government      ☒ Other: Public

(b) (5)

#### MOVING FORWARD:

• (b) (5)

LEAD OFFICE/REGION: OCSP

OTHER KEY OFFICES/REGIONS: REGIONS 2 AND 4,  
OITA, OEJ, OCHP